

MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

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VOL. L. No. 23.
WEEKLY.

BALTIMORE, DECEMBER 20, 1906.

\$4.00 A YEAR.
SINGLE COPIES, 10 CENTS.

Manufacturers' Record.

PUBLISHED EVERY THURSDAY BY THE
MANUFACTURERS' RECORD PUBLISHING CO.
BALTIMORE.

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Boston—170 Summer Street.
Chicago—135 Adams Street.
St. Louis—310 Equitable Building.

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Special Correspondent for West Virginia,
Kentucky and Southwest Virginia.

Subscription, \$4 a year
(payable in advance) to United States
Canada, Mexico, Cuba, Porto Rico, Hawaii
and the Philippines.
To Foreign Countries in the Postal Union.
\$6.50 a year.

[Entered at the Baltimore Postoffice as sec-
ond class matter.]

BALTIMORE, DECEMBER 20, 1906.

CONGRATULATIONS, CAROLINA!

South Carolina is to be congratulated upon a decision given this week by the National Department of Commerce and Labor that the plan for inducing immigration put into effect by the government of that State and so successfully inaugurated by Commissioner E. J. Watson in the arrivals last month on the steamship Wittekind, was in accordance with the immigration laws of the country. Efforts had been made to cripple this promising and practical move for immigration to the South. Now that these efforts have failed, it is hoped that every other Southern State will be inspired to follow South Carolina's example, adapting its plan to suit varying circumstances, and that the immigration thus furthered may be up to the sample of the Wittekind's passengers.

AS OUR WORK IS VIEWED.

Referring to an advertisement of the Finkbine Lumber Co., published in "Classified Opportunities" department of the MANUFACTURERS' RECORD, October 25, calling for engineers for dam construction, Mr. P. H. Norcross of Solomon-Norcross Company, civil, structural and hydraulic engineers, Atlanta, Ga., writes:

The writer followed the matter up closely and succeeded in landing the work with the above advertisers for the engineering work in the construction of these dams in Mississippi. We have employed on this work four competent engineers, and at the present writing are beginning to realize the opportunities that the MANUFACTURERS' RECORD presents to energetic engineers in securing the engineering work necessary in

connection with the improvement of the South.

In conclusion we wish to say that our profits from this one job alone should be of such a nature as to make us say that we would not be without the MANUFACTURERS' RECORD, and also that the courtesy that you and your staff have extended our firm has been of such a nature that we consider you our personal friend.

Mr. John J. Watson, investment agent, Baltimore, Md., writes to the MANUFACTURERS' RECORD as follows:

My ad. has given me more than I could attend to in that line, and now I am deeply interested in a large real-estate corporation which will take up a great deal of time.

I have traveled all through the South, and everyone certainly does speak in the highest terms of your paper. What surprises me more than anything is your wide circulation. I want to assure you I am a warm friend of the MANUFACTURERS' RECORD.

Mr. W. B. Mitchell of Chattanooga, Tenn., writes to the MANUFACTURERS' RECORD:

I not only wish to renew my subscription now, but you may consider me a permanent subscriber. The facts which the MANUFACTURERS' RECORD marshals from week to week concerning the growth and development of the South are not only of great benefit to our section of the country, but are of the greatest interest to every business man of the South.

Hon. Sherrod Smith, Mayor of Covington, Tenn., writes to the MANUFACTURERS' RECORD as follows:

We had no trouble in floating our sewer bonds (a \$15,000 issue) and in securing a good contract. We will begin work next spring. Will use two septic tanks. Thanks to your notices, we floated our bonds above par and without a cent of expense to the city for attorneys' fees, and had a good field of contractors to bid on the work.

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 73, 74 and 75.

THE CHANCE AT JAMESTOWN.

Practical steps taken by Governor Swanson, railroad officials, manufacturers and others to insure at the Jamestown Exposition a typical exhibit of the mineral and timber resources of Virginia offer a hint which should be speedily adopted and applied by similar groups of men in other Southern States. For instance, the iron and coal and timber interests of Alabama could, with little difficulty and at an expense slight in comparison with the returns that would surely come, arrange a demonstration of Alabama's power in those particulars that would certainly attract the widest kind of attention to the State and surprise some of its own inhabitants. The sugar men of Louisiana and Texas and the rice men of the same States, together with the growers on the seaboard, the cotton-mill men of the Piedmont and other workers for the South will likewise find profit in some such collective effort on like lines. Where provision has been made for displays under State auspices, groups of individuals in those States should see to it that the diverse interests are adequately represented, and, where State

effort is lacking, the deficiency should be likewise overcome. Unique as it will be in many respects, the Jamestown Exposition is sure to attract not merely sightseers for pleasure, but also hundreds of thousands of visitors who will have their eyes open for clues to Southern opportunities. Progressive men of Southern States should leave nothing undone to make those clues sure and irresistible.

SOUTHERN BREADSTUFF EXPORTS.

Reports of the values of exports of breadstuffs at 23 of the leading ports of the country during the past 11 months show that Southern ports have made a notable record. At all the ports these exports had a value of \$165,090,559, an increase over the same period in 1905 of \$45,454,797. The increases at six Southern ports were as follows:

Districts.	1905.	1906.
Baltimore.....	\$13,312,452	\$21,776,971
Newport News.....	5,061,813	8,584,000
Norfolk and Portsmouth.....	688,155	2,593,514
Galveston.....	5,595,103	14,874,086
Mobile.....	2,788,420	2,476,344
New Orleans.....	11,337,082	17,965,400
Total.....	\$38,783,025	\$68,370,315
All districts.....	119,635,762	165,090,559

At the 17 ports not included in this Southern list the increase during the 11 months was from \$80,852,737 to \$96,720,244, or by \$15,867,507, equal to 19.6 per cent., while at the six Southern ports the increase was from \$38,783,025 to \$68,370,315, or by \$29,587,290, equal to 76.3 per cent.

TO WHAT END?

An interesting sidelight upon the anxiety of some folks about immigration to the South is thrown by the statement of an employee of the United States Senate with reference to certain letters written by him on the paper of the committee of the Senate employing him. He said:

They relate to my efforts to turn toward the South the tide of foreign immigration. It was estimated that to properly initiate the movement would require a capital of \$1000. This is the expenditure referred to in the letter. In response to a request from Mr. Kowalsky I went to New York, and it was there agreed that I should receive \$100 in order that I might be paid for the letters I had written in aid of the movement and that I might be reimbursed the expense I had incurred, and also to enable me to attend the Immigration Congress, which was held at Chattanooga.

Who is Mr. Kowalsky? What interest does he represent in immigration to the South? What tide of foreign immigration was the employee of the United States Senate to turn to the South at an initial cost of \$1000?

COLUMBUS SECONDARY SCHOOL.

Individuals inclined to encourage the movement that has made possible the establishment of the Secondary Industrial School at Columbus, Ga., are likely to lose their enthusiasm in the cause unless there is a suppression of the individual who persists in sending out in connection with the opening of the school misrepresentations of economic

conditions in Georgia, for the purpose, apparently, of creating an impression in money-giving quarters that the child-labor legislation in Georgia, under the patronage of the needy National Child-Labor Committee of New York, was of more importance than the facts in the case prove. The MANUFACTURERS' RECORD has already called attention to the statement published in this connection, under a Columbus date line, that "scarcely any of the children in Georgia have ever attended school." Some impulsive folks would call that statement an absolute lie. Akin to it was the statement published under a Columbus date line in a New York paper with reference to the opening of the Secondary Industrial School on December 10:

While informal, the opening was attended by many educators, and was marked by a large attendance of pupils, many of them former operatives in the Columbus cotton mills, out of employment through the recently enacted child-labor law.

The truth of the matter appeared in the *Enquirer-Sun* of Columbus, Ga., as follows:

The secondary industrial school opened yesterday morning with an attendance of 28 pupils. This attendance was considered gratifying in view of the fact that the school was over two months late in opening, that the holidays are near at hand and that the opening morning was rainy and disagreeable.

The imagination able to describe 28 pupils as "a large attendance of pupils, many of them former operatives in the Columbus cotton mills, out of employment through recently-enacted child-labor law," equals as to reliability the imagination which framed the money-seeking advertisement of the National Child-Labor Committee of New York, published November 17, and containing false statements, which, as far as the MANUFACTURERS' RECORD knows, have not been corrected by the National Child-Labor Committee with the same degree of publicity, if at all, as that of their original publication, although the attention of influential men, whose names were used in the advertisement, was called to the misstatements.

TO ATTRACT ENGLISHMEN.

Mr. C. Crabtree, superintendent of the Durham Hosiery Mills, Durham, N. C., writes to the MANUFACTURERS' RECORD as follows:

In reply to your request of a few days ago to write my experience in the South and my opinion of it as a suitable place for English cotton-mill people to locate, I beg to say, in the first place, that English and Northern people who came here to take prominent positions, such as overseers and superintendents, like their surroundings pretty well. The general run of mill help, such as card-room hands, spinning-room hands and weavers, balk at the 66-hour week. I have had a number of people fresh from England, and their complaint has always been too long hours. Almost all of them like the work and the people all right. It is not very encouraging to invite people when you know that they are going to grumble on that score. The manufacturers must concede something in the way of shorter hours if they expect to get this class of mill help. The Piedmont section is a fine country to live in and is

comparatively free from malarial ills. I also find that an Englishman who is decent is made to feel at home at once. My own experience in this country has been very satisfactory, having been fortunate in securing desirable places. Wages in the last 10 years have advanced very materially, in some instances 50 per cent. If we could get a few families in every mill town and make them satisfied, they would write their friends and people at home. In the course of a few years I feel satisfied immigration would flow this way. The South should be freely advertised in the Old Country and the people there shown some of the advantages that a country like this has to offer. The chances of promotion for steady, industrious men are much greater here than in the old countries, with their congested populations. The cotton-mill industry of this section is comparatively young, but is growing very rapidly, and, in my opinion, is bound to grow to very considerable dimensions, making places and desirable opportunities for those who will grasp them. The textile and mechanical industries, together with the farm lands, make this section a very desirable one to locate in. The next decade will, in my opinion, bring us the machine shops for making all kinds of cotton-mill machinery, farm implements and tools of all kinds. And why not? The people are of the same family and of the race which has done so much for the industrial world of today. The people of the Saxon and Anglo-Saxon races are the people needed in this country and should be encouraged to come this way. Shorter hours of labor and increased immigration are synonymous and are coming this way.

This letter contains suggestions worthy of careful consideration on the part not only of cotton-mill men or of other employers in manufacturing or agriculture, but also of everybody who is anxious to have in the South the population which its natural resources justify and the full development of those resources demand. There is no doubt that many thousands of desirable persons in Great Britain could be induced to settle in the South, either as employees or as independent workers in the Piedmont section or other parts of the South, if the South should be liberally and persistently advertised in the Old Country, as Mr. Crabtree suggests, and if the reception given them both as to the time and the pay for their labor and the treatment of them as men and women should correspond to that which Mr. Crabtree has evidently enjoyed and which has given him such favorable impressions of his surroundings. His view of the future of the cotton-mill industry in his section and the opportunities which it will present for men early on the ground is by no means too optimistic, and it may readily be extended so as to take in many other lines of Southern activity.

The question of hours of labor in the South will adjust itself if the pleasant relations between employers and employees which have been a notable feature of American industrial life be maintained upon their old basis and not be interrupted by the intrusion of hired agitators whose living depends upon a cultivation of antagonism between capital and labor. So, too, the matter of wages will be settled in time, and great progress has been made in that direction in the past few years and is being hastened by natural influences. But above the questions of hours and wages is that of the treatment accorded to employees. New conditions in the South have given birth to new problems, and it is a mistake to imagine that the class of labor for which the South is now calling will be content with surroundings which at an earlier time were perfectly satisfactory to the class of labor upon which so much dependence was had. Employees not only in cotton mills, but in the mines, in the lumber camps and in the field have a right to expect healthful and comfortable homes, good educational facilities for their children and the ready means of relaxation out of working hours. It is not believed

that they will be disappointed on that score. Many cotton mills have been leaders in the movement in this country known as welfare work in industry, and their number is being steadily recruited in other industries.

A WORD TO SMALL INVESTORS.

The present seems to be a time when particular efforts are being made to induce people of small means to buy alleged stock in alleged enterprises of various kinds, and the advertisers thereof generally employ the most enticing methods to represent them, sometimes using without authority the names of well-known men to bolster up assertions concerning the pretended merit of their wares. In most cases the men engaged in this line of work make the price of the so-called shares which they offer at such a figure as to meet the capacity of the pocketbooks of those whom they seek to interest. Shares of a few dollars, and often of comparatively few cents each, are attractive to some persons, who feel that they cannot afford to purchase stocks of greater apparent value for either speculation or investment, because those of higher price would give them very few shares for their money, and consequently the chances for profit in a rise would be too small. By exciting anticipations of getting rich quickly, the men who thus endeavor to draw to their pockets the hard-earned savings of others of small or moderate salaries hope themselves to reap large profits at the expense of those whom they have induced to part with their money.

Just now the mining craze has the center of the speculative field, but it should be borne in mind by everyone who is tempted to participate in the mad dance which is now going on in some quarters that it is only here and there that a mining proposition of worth is to be found, and they should resist every impulse to risk their money unless, after personal investigation and with the advice of some one versed in mining and financial matters in whom they know they can trust, they feel that it would be safe to make the proposed venture. But it is not alone mining schemes which are presented to lead the schoolteacher, the college professor, the mechanic, the clergyman, the clerk, yes, even elevator boys, scrub women and other employees to part with their money. Sometimes it is an improved mode of transportation, again it is an alleged discovery or an invention which will make many rich, but the promoters, inventors or discoverers thereof only lack the money to put the particular thing which they advocate before the public.

It must not be concluded that all the people who put out these plans in advertisements are seeking to get hold of people's money without caring whether the investors ever reap any returns or not, although many of them are of such base character. Here and there will be found one who is an unbalanced enthusiast, who imagines that he has invented or discovered something that will yield him and those who go in with him for its exploitation oceans of wealth, but in either event the outcome is often the same—the investors lose their money—those first savings which are so hard to accumulate, but which, when once firmly established in good investments, often prove to be the foundation of comfortable means for a lifetime, if not the actual basis of a fortune.

Some years ago the newspapers of the country were filled with advertise-

ments of lotteries, one or two being particularly large and prosperous, and the mails were burdened with letters to and from these enterprises (indeed, they were more deserving of the name of enterprises than numbers of the so-called businesses now being displayed in advertising to scalp the small investor), yet the United States Government excluded their matter from the mails at last and practically broke up their improper money-making. But many of the now-existing schemes for getting small amounts of money from each individual of a large number of people are worse even than the lotteries, in that they do not make any return whatever to anyone for what is invested. It therefore behooves everyone who comes within the influence of these pirates in the financial world to be on their guard, and, when tempted by the promise of big profits, to reflect upon the fact that legitimate enterprises would not have to go a-begging for funds in this way.

Of all men, the small investor should exercise especial care that his purchases of stocks or bonds are of such character as to insure preservation of the principal. While the *MANUFACTURERS' RECORD* does not by any means undertake to say what mining and kindred stock-selling enterprises now being widely advertised are legitimate, and many of them doubtless are, it does not accept that class of advertising. It strives to keep its advertising pages just as free from possible fake schemes as it does to protect its reading pages, for it is jealous of the high standing of its advertising clientele, which cannot be surpassed by that of any other journal in America.

JOHN MIFFLIN HOOD.

The death of Gen. John M. Hood, president of the United Railways & Electric Co. of Baltimore, makes vacant an important post which he was particularly and peculiarly fitted to fill with great ability. He was sick but a short time—not more than a week or two—and there is little doubt that the attack of acute indigestion, which resulted fatally, was brought on by his untiring devotion to his official duties, that were performed regardless of personal considerations and of thought for his physical welfare.

His notable management of the Western Maryland Railroad during that part of its history when it was financially hampered, led the directors of the United Railways & Electric Co. nearly five years ago to offer him the position of chief executive of that corporation, feeling assured that he would fill it with that rare tact and fidelity which distinguished him in his former place, and which were so necessary to the successful conduct of the new office which he accepted. That their selection of him to preside over the United Railways was all that they expected it to be has been shown by the board of directors and other officers of the company in the earnest support they have given to his administration since he took up the lines of control on February 27, 1902. No doubt they feel that it will be difficult to find another man possessed of qualities so desirable in a railroad president as were those so unvaryingly present in his character. He was a thorough railroad man, having started as civil engineer and later learned the railroad business carefully in all its departments, as a president and general manager. He was of steadfast character, a courageous and unyielding fighter when battle had to

be done, but he was always mild of manner, courteous and considerate of others, no matter what was their position in life.

General Hood was a native Marylander and a devoted son of the South. When the Civil War broke out he was in Brazil, but returned home and enlisted in the Confederate Army as a private, but his ability as an engineer secured his promotion to the engineering branch of the military service, in which he remained. His connection with the Western Maryland began in 1874, after he had spent several years as engineer with various lines.

The upbuilding of the old Western Maryland Railroad was mainly due to General Hood's foresight and energy. He completed the line to Williamsport, Md., and in later years constructed and connected the Pennsylvania Division, which runs from Emory Grove through Hanover and Gettysburg. He also perceived the great advantage of the Allenwald cutoff and the Cherry Run extension, which established a quick connection between the Baltimore & Ohio and the Philadelphia & Reading railroads. The result of constructing these lines was that the Western Maryland largely increased its earnings by handling freight between two important railroads, adding to its value when it came upon the market, and General Hood's advice was undoubtedly of great advantage to the city of Baltimore when it came to dispose of the road to its present owners.

While General Hood has always been esteemed throughout Baltimore and Maryland, and, in fact, wherever he was known, those who were closest to him and who knew the real worth of his modest character pay the warmest tributes to his memory. One who was with him for 25 years says there was never a better man created; that he never saw him do an injustice, and that he had seen him resist to the utmost injustice which threatened others. These are high encomiums, but it is the men of modest nature who often display the qualities that elicit such comment. There are other men, of course, equally true, good and courageous, but their places in life have not been such as to display them before many. It is to be hoped that someone equal in every way to fill the president's chair now vacant will be discovered when the company takes up the duty of filling that position.

OGDENISM'S CONTRACTS WITH COLLEGES.

One of the interesting, if not amusing, phases of the Ogden Movement for Education in the South is the certainty that in whatever Southern community any striking revelations of Ogdenism's methods may be made, there, at some time more or less subsequent, will appear, for the apparent purpose of pouring oil upon the creaking machinery, Doctor Wallace Buttrick, Secretary of the General Education Board, financier of the Ogden Movement. He appeared at Raleigh, N. C., on December 12, blithesome, jocund and with a squint, perhaps, toward Charleston, S. C., or toward some church gathering, and was quoted the next day by the *News and Observer* of that city as follows:

We have no hard and fast rules or iron-clad conditions. We have no disposition to make any conditions that are not agreeable to the college taking the money. We make no uniform conditions except that the funds are not to be used by any college for "specifically theological instruction." We believe in Christian colleges; we really give preference to them in making our gifts.

Many persons outside the circle of Ogdenism might be mystified about the pertinency of those remarks at Raleigh on December 12 if they did not recall certain revelations of Ogdenism made in the MANUFACTURERS' RECORD of August 23, under the head of "an irredeemable mortgage on the soul of a college." We were moved to make the revelations by our knowledge of a tender of funds by the General Education Board to a denominational college not a thousand miles from Raleigh. The tender was made in a letter to the president of the college, which we will not name, with which was enclosed a copy of a pledge for the trustees to make. This letter read:

If this is satisfactory to your Board of Trustees, I will ask them to indicate such approval by the adoption of a resolution substantially as follows:

"The Board of Trustees of College hereby accepts the conditional pledge of the General Education Board dated May 29, 1906, and covenants and agrees that if the terms of the pledge are complied with and the money paid by the General Education Board, that the Board of Trustees of College will faithfully perform the covenants on behalf of said college contained in said pledge."

With best wishes, I am,

Most truly yours,

WALLACE BUTTRICK.

The pledge enclosed included the following covenants:

That no part of the income from the fund so contributed by this Board shall ever be used for specifically theological instruction.

That the accredited representatives of this Board shall at all reasonable times have the right to inspect the books, accounts and securities of said College.

Commenting upon this deal with a Christian college, the Charlotte Observer of Charlotte, N. C., said:

What is the certain college to which this offer was made, with this condition and the other one that the gift is to entitle the General Education Board to examine the books and exercise supervision of the financial affairs of the institution? Is it a North Carolina college? If so, which one?

There may be no design in this beneficent offer to "control, hamper, subsidize or despoil," but there runs frequently through the South Carolina papers a quotation—the origin of which we do not know and the local application of which we do not understand—"Whose bread I eat, his song I sing"—and it is brought to mind with tremendous force in this connection.

On the same line the News and Observer of Raleigh said:

No denominational college could afford to accept a single dollar under the first condition without sacrificing its character. No college, denominational or otherwise, wishing to preserve its independence could afford to accept a dollar under the second condition. Both combined make acceptance a degradation. The MANUFACTURERS' RECORD truly says that "such a contribution is not a gift—it is an irredeemable mortgage on the soul of an institution that accepts it." Better a thousand times that a college struggle along with poor equipment and heavy debt than to purchase equipment and financial ease by a loss of independence or by some agreement that puts a mortgage upon the soul of the institution. This is true whether it is a registered mortgage or a mortgage that is not of record. If by accepting money the college feels bound to be silenced about, let us say, the evils of the Standard Oil or the cigarette trust, or to defend the wrongs committed by this powerful illegal foe of fair play, then it has sold its birthright for a mess of pottage and virtue has gone out of it. Money that carries no obligation to condone evil or to be silenced in any way is a great blessing, but money that has such strings tied to it as the MANUFACTURERS' RECORD says are tied to certain gifts tendered by the General Education Board would prove a curse.

Hinc illae lacrimae.

Ogdenism has tendered through the General Education Board, Doctor Wallace Buttrick, secretary, conditional gifts to half a dozen denominational colleges in the South. Is one to infer from Doctor Wallace Buttrick's statement of December 12 that the tender

of aims to none of these colleges now involves the right of Ogdenism to inspect the books, accounts and securities of said college?

Slipping over to Charlotte, another interview with Secretary Buttrick was landed in the Charlotte Observer. The real kernel of it was as follows:

Much misapprehension has existed in the South as to the objects and aims of the Board. Its motives have been impugned and great effort has been made to discover some ulterior motive in its work. It is impossible to answer when one's motives are questioned.

When, where, how and by whom motives of Ogdenism have been impugned not being specified, that vague allusion merely reflects the tone assumed in an organ of Ogdenism nearly five years ago to the effect that "the Northern educators and philanthropists are obliged to proceed very carefully and to pick their way diplomatically because of the point of view from which the Southern white man regards a negro," and that critics of the movement "will get out of the way of the steam road roller or be lost under its pressure." Obscure allusion to the imputation of motives cannot blind intelligence to the undeniable facts about the acts and utterances of Ogdenism during the past five or six years, nor can it shift the issue from the unmistakable end of Ogdenism, no matter what its motives or its purposes may be.

One of the ends of the working in harmony of the \$10,000,000 General Education Board and the \$10,000,000 professor-pensioning board is foreshadowed already in the South in the scramble of colleges for "educational alms," and it aligns itself with the effects of Carnegie cash abroad set forth in the following cable dispatch from London, England, to the New York Sun:

Prof. Sir William Japp Sinclair of Victoria University, Manchester, in a speech at Aberdeen, voiced the numerous severe complaints of the evil effect of Andrew Carnegie's gift of \$10,000,000 to the Scottish universities. He said that he had never met an Aberdeen graduate who did not denounce the influence of the gift.

It is learned from other sources that the provision whereby any Scottish student may apply to the Carnegie Trust for fees has been interpreted with such latitude that even some colored students have received aid. The practical effect of the gift was that a majority of students at all the Scottish universities had drawn fees from the trust fund, many of them squandering the money supplied by their parents and concealing the fact that they received help from the fund.

It is also asserted that the university professors, in view of the students receiving these donations, have raised their tutorial fees and become less earnest in performing their duties. It is declared that the Scottish student is losing his self-reliance and capacity for study under difficulties and that the whole nature of Scottish university training is undergoing a change for the worse.

The moral in that, of course, is lost upon the employees or proteges of Ogdenism.

PROBLEM OF POPULATION.

Mr. W. Henry Hunter, president of the Manchester Association of Engineers, in England, is not one of the individuals alarmed at any vision of race suicide. On the contrary, he seems to be impressed, though not pessimistically, with the necessity for devising means to provide in the future food sufficient for the needs of the inhabitants of the globe. In his recent inaugural address he expressed the belief that in the nineteenth century the population of the globe was doubled, and as an indication that it would tend

to increase rather than decrease, he said:

Modern civilization diminishes the birth-rate in any country; the birth-rate in this country is steadily declining; but it diminishes the death-rate in a much greater ratio; it protects the women and defends the children, and reduces to a degree, which it is difficult for us to appreciate, the loss of human life due to war, pestilence and famine. The questions relating to the elimination of the waste due to these three terrible scourges to humanity have demanded and have received, and still demand and receive, the attention of the noblest minds and the highest intellects amongst men, who, working in many fields and in varied branches of widely extended effort, have already attained much, so that truly great and beneficent changes in the conditions of human existence have been effected through which human life has been prolonged. But there is more to follow; there is no end in sight so far as the changes which are in progress are concerned, and the overwhelming problem which must force itself upon statesmen and other leaders of men will be the possibility of obtaining sufficient food from the earth for the maintenance of its rapidly-increasing inhabitants. The time at which that overwhelming problem will begin to make its weight felt is near enough for us to interest ourselves in it.

Mr. Hunter pointed out that during the nineteenth century the increase in the wheat-bearing acreage of the globe more than balanced the increase in population, but that the ultimate possibilities of these lands will be reached before long, and that fresh means will have to be found to increase the supply of that foodstuff. He looks to chemists and other scientific workers to reinforce the efforts of agriculture to that end, and he fully expects them to come to the aid of humanity, both by increasing the supply of food from sources already available and by developing new sources. He sees opportunity for this in the reclamation of great and now almost useless tracts in Asia which once supported dense populations, and in the utilization of enormous areas of barrenness, such as the Sahara, and territories in Arabia, Africa, Asia and Australia, which have never in history yielded anything for the sustenance of mankind.

Mr. Hunter has every reason for hopefulness about the future of the human race. Just at present it does not seem sufficiently numerous to do the work calling to it for its full prosperity and progress, to take complete advantage of the opportunities offering themselves for its advantage. But the remarkable economic situation, which finds in some quarters of the globe two jobs waiting for every man willing to work, and in other quarters more crops being grown than can be harvested and more being harvested than can be hauled to market, as Secretary Shaw has characterized it, is but temporary. It is a natural consequence of half a century and more of revolution in the arts and science, in industry, in transportation, in trade and in finance, and the apparent embarrassments are merely evidences of humanity's creation of machinery ahead of the development of humanity's ability to man the machinery properly on the one hand, and, on the other, inability of humanity to provide the machinery necessary to the full exercise of humanity's powers. Readjustment must ultimately come, and a part of that readjustment will be the evolution of the means to provide sustenance for an indefinite increase in the population of the globe.

SOUTHERN INVENTORS.

Necessity is the mother of invention is an aphorism that may have its complement in prosperity is the father of indolence. Such might seem to be a

superficial deduction from the fact that prosperity in this country during the past three years has been accompanied by a diminution in the number of patents issued to citizens of the United States, the number being 27,819 in 1903, 27,539 in 1904 and 26,978 in 1905. In the South in the same period there has been similar diminution, and the variations by different States appear in the following table:

	1903.	1904.	1905.
Alabama.....	134	145	128
Arkansas.....	78	100	93
District of Columbia..	282	243	232
Florida.....	67	76	69
Georgia.....	230	222	224
Kentucky.....	277	255	243
Louisiana.....	143	137	159
Maryland.....	340	269	290
Mississippi.....	70	90	92
North Carolina.....	125	124	141
South Carolina.....	76	70	79
Tennessee.....	306	213	189
Texas.....	434	415	382
Virginia.....	210	233	206
West Virginia.....	152	159	173
Total.....	2,796	2,771	2,701
Total United States..	27,819	27,539	26,978

In proportion to population, more patents, 1 to every 1201, were issued to residents of the District of Columbia in 1905 than to those of any State or Territory. That does not signify that there is anything especial about the atmosphere of the District of Columbia encouraging the inventive instinct or that there is any particular incentive to invention, except, perhaps, the location of the Patent Office at Washington, and the consequent natural inclination of inventors to be there in person or by attorney. Patents in the Southern States in proportion to population were issued as follows: Maryland, 1 to every 4103; West Virginia, 1 to every 5542; Florida, 1 to every 7060; Texas, 1 to every 7980; Louisiana, 1 to every 8089; Kentucky, 1 to every 8836; Virginia, 1 to every 9000; Georgia, 1 to every 9894; Tennessee, 1 to every 10,691; Alabama, 1 to every 13,253; North Carolina, 1 to every 13,431; Arkansas, 1 to every 14,102; Mississippi, 1 to every 16,861; and South Carolina, 1 to every 19,147. New York led the country in the actual number, 4392 patents issued, with Alaska at the tail end with one patent. Texas led the South with 382 patents, and Florida, with but 69, made the smallest showing for that section.

There are too many elements to be considered to make any general deduction as to the prevalence of the inventive spirit from the figures of patents issued in proportion to the population of a State or a section. That is very evident from the fact that the District of Columbia, with 1 patent granted to every 1201 of the population, a greater proportion than the 1 to every 1225 in Connecticut, a veritable incubator of American patents, and South Carolina, with 1 patent to every 19,147 of the population, the lowest as to proportion of the States and Territories, save Alaska, are both in the South. But it is obvious that although the South produced such revolutionizing inventions as the cotton gin and the reaping machine, it has, in proportion to population, not been granted near as many patents as the rest of the country. This may be explained by the presence in the South, constituting nearly 30 per cent. of its population, of a race imitative rather than inventive, by the dominance there for half a century at least of easy agriculture, suppressing temporarily the mechanical instincts once shared equally with the North and a fertile source of invention and by the absence of pressing necessity. With the exception of pressing necessity, the situation is being changed in the South. The negro is becoming of less weight in the population, while the rise of manufacturing

industry in an age of machinery has been marked by a notable recrudescence of the mechanical mind of the simpler manufacturing age, and with that must come mechanical invention, but one expression of the mind which has brought the South out of wreck and ruin and through appalling difficulties, economic, political and social, to its present amazing position.

A REINFORCED STATISTICIAN.

In its issue of November 1 the MANUFACTURERS' RECORD, in an editorial dealing with the increase in Southern wealth, said that "the wealth of the South this year may be estimated at \$18,000,000,000, which is nearly \$2,000,000,000 more than the true value of property in the whole country in 1860." It is therefore not surprising to read in the *Journal of Spartanburg*, S. C., and in the *Evening Star of Meridian*, Miss., a dispatch from New Orleans dated December 6 that "a statistician of reputed ability will in a few days issue a pamphlet showing the value of real and personal estate in the 14 Southern States," and that his calculations "will total the enormous sum of \$18,000,000,000, which is nearly \$2,000,000,000 more than the true value of the whole country in 1860." Statisticians of reputed ability make no mistake in using the figures compiled by the MANUFACTURERS' RECORD in preparing their startling statements about Southern progress.

RIVERS FOR TRANSPORTATION.

Mr. I. Heidenheim, secretary Barataria Canning Co., Biloxi, Miss., writes to the MANUFACTURERS' RECORD as follows:

"In a previous article in your paper I notice that some prominent railroad magnate stated that there would not be enough money to build all the railroads which the ever-increasing traffic commanded all over the country for the next six years at the present supply of the money market. Therefore your article in a late issue of the MANUFACTURERS' RECORD, entitled 'Railroad Freight Congestion Makes Imperative Rivers and Harbors Improvements,' comes in good time, for certainly the country does not intend to suffer for six years as the railroad magnate suggests. So that there is nothing left to be done but to improve the harbors and waterways of our country."

FOR CITY IMPROVEMENT.

The Progressive Union of New Orleans, La., has inaugurated a novel idea to arouse increased public interest in its work for the city. Through its membership committee it has decided to raise a voluntary fund, with subscriptions not exceeding \$5, to be used for a prize idea contest. This contest will consist of a prize to be given to that citizen, male or female, of New Orleans, whether a member of the Union or not, who submits by January 1 the best suggestion for a plan of work to be undertaken by the Union during the coming year for cleaning the city, inducing desirable immigration, bringing in factories, beautifying the city, encouraging civic pride, street paving, improving mail facilities and increasing membership in the Union.

LOOKING TO JACKSON.

Seven applications for factory sites have recently been received by the Board of Trade of Jackson, Miss. Four of the companies stated in their applications that they had decided to locate in Jackson and asked the assistance of the Board of Trade in selecting the location best suited for their industries, while the others asked that sites be donated them. The Board of Trade has had many inquiries from outside people concerning the facilities of Jackson as a future location since the

announcement that the New Orleans & Great Northern Railroad would connect with the city.

COLONEL HESTER.

After 36 years' service as secretary of the New Orleans Cotton Exchange, Col. Henry G. Hester has again been elected to that position, and it is hoped that he may be thus honored for many years to come. In his position, where he has become a leading authority as to the commercial side of cotton, he is one of the most valuable citizens of New Orleans, directly and indirectly, a representative of a dominating interest of the South and a type of the alert and useful American mind.

THE COTTON MOVEMENT.

In his report for December 14 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 75 days of the present season was 6,902,054 bales, an increase over the same period last year of 586,347 bales; the exports were 3,463,000 bales, an increase of 486,287 bales; the takings were by Northern spinners 932,999 bales, a decrease of 122,421; by Southern spinners 860,271, an increase of 17,535 bales.

LAKE CHARLES BETTERMENTS.

Among the betterments of the past 12 months at Lake Charles, La., mentioned by the *Daily American* of that city are the completion of an eight-mile electric railway, the opening of a large hotel, the building of a dozen brick business blocks, the beginning at an initial expense of about \$100,000 of street paving, extensive enlargements and improvements at the various mills and steam-railroad developments in and near the city.

Rocky Mount, N. C.

Rocky Mount, N. C., a city of 8000 inhabitants, situated on the main line of the Atlantic Coast Line, has been making splendid progress along industrial and commercial lines in recent years. The assessed property of the city has advanced from \$760,000 in 1898 to \$2,250,000 in 1906, and the capital, surplus and deposits of the banks have increased from \$317,000 in 1901 to \$841,000 in 1906.

It contains a number of important manufacturing establishments, principally among them being the repair shops of the Atlantic Coast Line, employing 750 men, with a monthly pay-roll of \$70,000; Rocky Mount Cotton Mills, with 40,000 spindles and 300 employees; six tobacco stemmeries and prizeries, including those of the American and Imperial tobacco companies.

The city also contains well-regulated sewerage, water and electric-light systems, churches of every denomination, public schools and other conveniences usually found in progressive cities.

These facts are all evidenced in an illustrated edition of the *Rocky Mount Record*, which is being sent out by the Tar River Lumber Co.

Southern Engineers.

The Engineering Society of the South at its annual convention last week at Atlanta elected Messrs. A. V. Gude of Atlanta, president; G. H. Harris of Birmingham and R. M. Clayton of Atlanta, vice-presidents; H. M. Jones of Nashville, secretary and treasurer, and Hunter McDonald, G. M. England and C. B. Wilson, all of Nashville, directors.

About 100 citizens of Wynne, Ark., have organized a business men's league with Messrs. W. H. Newsom, president; J. E. Harris and C. U. Babbs, vice-presidents; F. O. Coghill, secretary; S. H. Osgood, assistant secretary; J. C. Harrell, treasurer, and O. N. Killough, attorney.

GROWTH AT MEMPHIS.

Marked Development There in Recent Years.

[Special Cor. Manufacturers' Record.]
Memphis, Tenn., December 14.

Memphis grows apace. In fact, her growth is far in excess of dwellings to comfortably house her people. One of the striking and at the same time delightful innovations of this magic city of material growth is that one fails to see a loafer or an unemployed person standing idly by waiting for a job. Everything is moving along with thrift and energy, and everybody is doing something in the steady development of the city. It will not be amiss to state that since the United States census of 1900 7100 houses have been built inside the city limits, and a conservative estimate of those built immediately surrounding the city is 2400, thus making 9500 house built in four years. There are 500 houses under construction at the present time.

Memphis is the largest hardwood producing lumber market in the world, handling in 1904 383,792,000 feet per year, the value of which was \$8,699,000. To this very important item may also be added another. It is acknowledged that Memphis is the largest inland cotton market in the world; annual receipts about 1,000,000 bales. Gross receipts this year run up into the hundreds of thousands, with an approximate value of over \$40,000,000.

The total volume of business of the city for 1905 amounted to \$519,502,859. Memphis produces more cottonseed products than any city in the world, and has 10 mills in operation.

In regard to transportation facilities Memphis is especially blessed, both as regards rail and water. There are eight trunk lines into the city, while it is stated that 11 railroads, or, more properly speaking, 11 connections, are made direct with the city. Memphis has 24 banks and trust companies, with a capital of \$7,500,000 and deposits amounting to \$35,000,000.

The population is an index of the growth of Memphis. In 1880 it had 33,892; in 1890, 64,495; in 1900, 102,320, while in the current year, 1906, it had grown to 191,169.

Many of the manufactories are full up with orders. Messrs. Benedict, Warren & Davidson, wholesale hardware, are contemplating the erection of a large building for office and warehouse purposes. They are now receiving bids for material and work. This building, with their present warehouse, will be an up-to-date plant for the wholesale distribution of manufactured goods.

The Concrete Construction Co., 110 South Front street, is manufacturing a two-piece building block (Ferguson system), made under a very heavy hydraulic pressure, with continuous air space and no through joints. It compares very favorably with stone, at about one-half the cost. Concrete seems to be the coming building material in this section of the country.

Messrs. J. D. Kennedy & Co., Nicholas avenue and Belt Line road, are enlarging their plant. They are dealers in machinery and supplies, wool and knitting-mill equipment. They buy, sell and exchange all kinds of machinery, and their long and successful experience in this line give them great advantage in serving their customers.

In the growth and development of Memphis I am led to the belief that its material wealth rests upon an educated citizenship as well as upon big enterprises, broad fields and fertile lands, great corporations, large manufacturers and large profits.

Federal Buildings South.

The MANUFACTURERS' RECORD has received advices from the offices of the United States supervising architect in

Washington relative to the present status of plans for erecting new federal buildings and improving structures already erected in the South. It is stated that the bids for the superstructure, interior finish and other work connected with the new courthouse and postoffice building at Atlanta, Ga., will be asked for as soon after January 10 as the drawings and specifications are completed. Bids for the foundation work are to be opened on the date named. Drawings for the extensions to the present buildings at Asheville, N. C.; Chattanooga, Tenn.; Fort Worth, Texas, and Petersburg, Va., are in various stages, and will be completed and bids will be invited as soon as possible. Bids for the extension to the building at Dallas, Texas, are to be opened on January 15. As to other new buildings to be erected in the South no definite information can be given at this time other than that they will be given attention in their regular order and pushed as fast as is consistent with the proper execution of the work.

Norfolk Marine Railway.

Marine railway interests at Norfolk will be augmented to a considerable extent by improvements which the Norfolk Marine Railway Co. has decided on. This company owns water-front property in Berkley ward, on Norfolk harbor, fronting about 500 feet on the river and with ample depth. It has two marine railways, one operated by electricity and the other to be so operated in a few weeks, a large modern machine shop and foundry, and contemplates building a third marine railway in the near future. All kinds of wooden craft will be constructed, especially large and small barges, and repair work will be undertaken to hulls or machinery of iron or wood vessels. The Norfolk Marine Railway Co. will effect its permanent organization this week with George T. Hudson (of Hudson & Bro., Norfolk) as president and Joseph M. Lawrence of Berkley, Va. (formerly with C. J. Colonna as manager of one of the plants taken over by the new company), as manager. Mr. Lawrence can be addressed at Berkley by inquirers.

Tarboro, N. C.

Embracing an area of 320,000 acres of land, of which 150,000 acres are cleared and in good tillable condition and well adapted to the cultivation of a diversity of valuable crops, Edgecombe county, North Carolina, holds out splendid inducements to prospective homeseekers. While cotton is the principal crop raised, the rich soil and favorable climatic conditions make possible the successful production of a large variety of other crops and fruits. The county has good railroad facilities, being only three hours from Norfolk and four hours from Richmond, Va., and consequently the trucking industry has increased more and more each year on a profitable scale. Much progress has also been made in manufacturing, there being now in successful operation 20 lumber mills, 8 cottonseed-oil mills, 3 cotton mills, 3 knitting mills, 2 guano factories, 2 buggy factories and 1 crate factory. These and many other interesting facts are contained in an interesting pamphlet, replete with illustrations of homes, factories and farm scenes, recently sent out by T. B. Jacocks of Tarboro, N. C.

The Baltimore & Chesapeake Transportation Co., capital \$250,000, has been incorporated to operate steamers between Baltimore and Cambridge, Md., and other points. The incorporators are Colin McCane, Harry S. Sinclair, Sylvanus Stokes and Chas. H. Knapp of Baltimore, John H. Burgess, Jr., and William H. Medford of Cambridge, Md., and Ralph C. Lupton of Wilmington, Del.

To Develop 100,000 Horse-Power at Muscle Shoals.

[Written for the Manufacturers' Record.]

Details of plans for the utilization for electric-power purposes of nearly 100,000 horse-power on the Tennessee river at Muscle Shoals are given in special correspondence to the MANUFACTURERS' RECORD from Florence, Ala., which says:

"Col. J. W. Worthington, the representative of the Muscle Shoals Hydro-Electric Co., addressed the Young Men's Business Club at the courthouse last night, and the message he brought was one of joy to the people both of Florence and Sheffield. The courtroom was packed by most of the business men of the city, and many ladies graced the assemblage. Colonel Worthington, who is an engineer of considerable note, and who has been studying the subject for some months, has determined to use his best efforts to have a plant installed here, making his announcement that he had been trying to locate the plant on the Colbert side of the river, yet, after consultation with the chief engineer associated with him, they had decided that the plant must be located on the north side of the river. He exhibited plans and drawings showing that the plant would be located just at the head of Patton's Island. In the course of his remarks he said:

"The backbone of the Birmingham district is coal; the underlying greatness of Pittsburg is coal, ores being brought 1000 miles to be converted; coal is the power which has made these two industrial cities, power and transportation being two things essential to industrial development. We have the natural power at Muscle Shoals, far superior to the power produced by Birmingham and Pittsburg, and when the coal fields of Pittsburg have been delved out by the Slav and there is no more coal in the Birmingham district the Muscle Shoals power will just be coming into its real value as a motive power, and this point on the Tennessee river will become the center of economic manufacture and will hold a commanding position in the commerce of the world."

"The plans of the Hydro-Electric Company as disclosed by Colonel Worthington's remarks and the drawing exhibited are as follows:

"First, the erection of an immense dam at the head of Patton's Island 50 feet high, which will back the water to lock 6; the construction of the largest lock in the world, having a lift of 50 feet, which will do away with the canal and aqueduct and let the boats out into the river. This will facilitate navigation and save much time to the boats in passing and much expense to the Government in maintaining the canal and locks.

"A power-house will be constructed which as shown by the plans will be 500 feet long, this being the only plan that will be approved by the Government engineers and the Secretary of War, as required in the bill passed by the last Congress known as the 'Richardson bill.' Colonel Worthington recommended the appointment of a standing committee from the Business Men's Club to co-operate with the company in educating the general public to the great importance of this enterprise and to at all times urge this development as an entirety, not stopping at any part of it, but work for it as a whole.

"The personnel of the company warrants the statement that the enterprise has assumed tangible shape and will be carried through. Colonel Worthington is the promoter of the Tri-City Electric Railway Co., equipped with every modern improvement. He is also consulting engineer of the great Sloss-Sheffield Steel & Iron

Co., and prominently connected with some of the larger enterprises in the State. He has associated with him others who are able with himself to grasp the magnitude of the undertaking, and as he said in his remarks, it was not a question of money with which to carry on the work, but men who would take in the true situation."

This undertaking is in connection with the utilization of vast water-power on the Tennessee river in the northern part of Alabama for the purpose of developing electrical power and improving navigation. The following extracts from the report of Chief Engineer Newell to the United States Geological Survey tells of the important features of this power. They say:

"In Tennessee river, in the vicinity of Florence, Ala., are several shoals capable of the development of power. The compiler has brought together the data regarding these, his intention being not to discuss the manner in which the immense water-power of these shoals can be developed, but to give some idea of its magnitude and the possibility of its utilization.

"The shoals are a succession of cascades amid many islands in a river bed varying in width from a half mile to three miles. The numerous channels thus formed are very irregular in fall and direction. The difference between high and low water is only five or six feet, corresponding to a rise of 50 feet at Chattanooga.

"From Browns Ferry to the mouth of Elk river the fall is 26 feet in 11 miles. This is known as 'Elk River Shoals.' Its most precipitous part is at the lower end, where there is a fall of 16.5 feet in about four miles.

"From the mouth of Elk river to the head of Muscle Shoals, a distance of five miles, there is a fall of only two feet.

"From the head of Muscle Shoals to Bainbridge the fall is 85 feet in 17 miles, and is known as 'Muscle Shoals.'

"From Bainbridge to Florence the fall is 23 feet in seven miles, and is known as 'Little Muscle Shoals.'

"From Florence to the head of Colbert Shoals the fall is three feet in 11 miles.

"From the head of Colbert Shoals to Waterloo the fall is 21 feet in six miles.

"The total fall from Browns Ferry to Waterloo is, therefore, 160 feet in a distance of 57 miles. Sixteen miles of the distance, however, has a fall of only five feet, leaving a fall of 155 feet in the 41 miles that cover the four shoals mentioned. The shoals are really more precipitous than the foregoing figures would indicate. For instance, 84.6 feet of the fall at Muscle Shoals is in a distance of 14 miles.

"The bed rock at Elk River Shoals is carboniferous limestone; that of Muscle Shoals is a hard siliceous rock of dark color and flinty structure.

"Assuming that tributaries entering the river below Chattanooga will safely supply all of the water needed for lockage, the discharge at Chattanooga can be used in estimating the water-power of these shoals, which are about 200 miles below Chattanooga by river, and of which the drainage area is more than 7000 square miles greater than that at Chattanooga.

"Estimated minimum net horse-power of Tennessee river in Alabama on turbines realizing 80 per cent. of the theoretical power:

Locality.	Fall, Feet.	Minimum net power in driest years.	Minimum net power in average years.
Elk River Shoals....	26	15,000	30,550
Muscle Shoals.....	85	51,000	98,875
Little Muscle Shoals	23	13,800	27,025
Colbert Shoals.....	21	12,600	24,675
Total.....	155	93,000	182,125

"The foregoing table assumes that the total fall can in each case be utilized. While this assumption is not correct, it stands as an offset to the assumption that the water supply available will be as low as the minimum discharge at Chattanooga, 200 miles above. The drainage area above Chattanooga is 21,418 square miles, while the drainage area above the shoals under consideration is about 29,000 square miles. It may therefore safely be assumed that the actual power available for development at the shoals is greater than that shown by the table."

The select committee of the United States Senate, of which Senator John T. Morgan of Alabama was chairman, in its report said that taking 99,875 horse-power as the daily capacity of the river at Muscle Shoals in average years and computing its value at the annual cost of horse-power generated by steam at Ensley or Birmingham, the saving in cost of the water-power almost exceeds belief. Estimating the cost of each horse-power generated at these coal centers at \$30 per annum, the cost of generating by steam 51,000 horse-power—the minimum horse-power at Muscle Shoals—would be \$1,530,000, while the cost of generating by steam the average Muscle Shoals horse-power of 99,875 would be \$2,996,250. To create this same horse-power by water the only cost would be the interest on the money necessary to

construct the dams and apply the power to the machinery and the cost of maintaining the dams and machinery. If seven dams were constructed at a cost of \$7,000,000 and the interest on this and the cost of maintenance should be estimated at the outside rate of 10 per cent., the cost of 99,875 horse-power would be \$700,000, or a saving in favor of water-power of 60 per cent. This saving is practically perpetual, and the value of the water-power would increase with every year.

The development of this great amount of power will not only prove a veritable boon to that section of the country in enlarging its industrial possibilities, but will also prevent floods and overcome many of the present disadvantages of navigation.

The Muscle Shoals Hydro-Electric Power Co. has been incorporated with a capital stock of \$1,000,000 for the purpose of developing this water-power, and among the incorporators are Frank S. Washburn, Nashville, Tenn.; Charles H. Baker of the American Public Utilities Co., 100 Broadway, New York; Wm. H. Lindsey, Nashville, Tenn.; J. W. Worthington, Sheffield, Ala., and Massey-Wilson, Montgomery, Ala.

The MANUFACTURERS' RECORD has been reliably informed that the American Public Utilities Co. of New York will be related in a way to this company.

EXPANDING COAL OUTPUT OF THE WORLD.

By FREDERICK E. SAWARD.

[Written for the Manufacturers' Record.]

The statistics of the world's coal output, as gathered by the British Board of Trade, afford some very interesting reading for all Americans who are at all on the alert for facts and figures regarding this industry, and particularly as showing that this country maintains its pre-eminence in the coal industry. The tabular statements are mainly for the year 1905, although certain of the figures are said to be "provisional," and all the facts gathered are in gross tons of 2240 pounds. Thus production is set down as below:

	1903.	1904.	1905.
Country.	Tons.	Tons.	Tons.
U. Kingdom.....	230,334,000	232,428,000	236,129,000
Germany.....	114,763,000	118,874,000	*119,349,000
France.....	33,668,000	32,964,000	*34,778,000
Belgium.....	23,415,000	22,395,000	21,506,000
United States.....	319,068,000	314,563,000	*350,821,000

*Provisional figures.

The total known coal production of the world (exclusive of brown coal or lignite) in 1905 was about 840,000,000 tons.

As showing how very cheap the American consumer gets his fuel, take these figures of the average prices at the pit's mouth in the years named:

	1903.	1904.	1905.
Country.	Per ton.	Per ton.	Per ton.
United Kingdom.....	7 5	7 2½	6 11½
Germany.....	8 9	8 8½	8 9½
France.....	11 5½	10 10½	*... ..
Belgium.....	10 6½	10 8	*... ..
United States.....	6 7	5 10½	5 8

*Not yet available.

The average value of coal per ton in Great Britain in 1905 was less than in any year since 1898. In the United States since 1903 the price has dropped, and in 1905 was 5s. 8d., or about the level of 1902, though higher than in any previous year since 1888.

Some mighty interesting figures about the export trade of various countries are shown in the following statement as covering the year 1905 only:

	Imports.	Exports.	Excess of Exports.
Country.	Tons.	Tons.	Tons.
United Kingdom.....	49,000	67,161,000	67,112,000
Germany.....	10,589,000	23,223,000	12,634,000
United States.....	1,648,000	9,189,000	7,541,000
Japan.....	352,000	2,516,000	2,164,000
Belgium.....	4,811,000	6,656,000	1,845,000
Australia.....	8,000	2,026,000	2,018,000
Transvaal.....	65,000	172,000	107,000
Natal.....	2,000	396,000	394,000
British India.....	187,000	837,000	650,000

The gross exports of the United Kingdom, the United States and Germany were the greatest recorded, and the same remark applies to the net exports of the two first-named countries. In the case of Germany, however, the net exports in 1905 were less than in any of the three preceding years.

Deducting the imports (which are not great proportionately to total output in any of these countries) from the exports, one gets what is called the home consumption, and this is put at the following figures:

	1903.	1904.	1905.
Country.	Tons.	Tons.	Tons.
United States.....	314,114,000	307,610,000	*332,280,000
U. Kingdom.....	166,532,000	166,609,000	169,017,000
Germany.....	100,164,000	104,094,000	*106,715,000
France.....	46,571,000	45,433,000	*46,046,000
Russia.....	*20,882,000	*22,724,000	*30,890,000
Belgium.....	30,682,000	19,726,000	19,661,000
Aus. Hungary.....	17,987,000	18,421,000	*19,930,000

*Provisional figures.

It is shown, by taking population and dividing this into coal consumption in the several countries, that the quantity per inhabitant per annum is 4.13 tons in the United States and 3.91 tons in Great Britain. Considering our large non-coal-burning population, this is an extraordinary showing.

The following statement shows the percentage proportion of the coal consumed in the principal coal-producing countries in 1905:

	Coal of native production.	British production.	Produce of other countries.
Country.	Per cent.	Per cent.	Per cent.
United Kingdom.....	99.97	...	0.03
*United States.....	99.52	0.02	0.46
*Germany.....	90.08	6.95	2.97
*France.....	70.96	12.40	16.56
Belgium.....	75.53	3.40	21.07

*Provisional figures.

This is my last coal story for the year 1906, and perhaps a few words about our own particular trade are in order. We shall do a larger tonnage than in 1905, when the sum total was 392,900,000 net tons of coal of all kinds. It is not too much to add 10 per cent. to that figure, for our rate of progression has been at that pace in the past 10 years. What a multitude of the black diamonds that means; far and away ahead of that other precious stone—the diamond—in value. With our industries going ahead at this

pace, is it any wonder that we need more cars and more engines? On this basis, what may the estimate for the Southern States be for the year 1906? Let us see the figures:

State.	Tons.
West Virginia.....	41,000,000
Alabama.....	12,750,000
Kentucky.....	9,250,000
Tennessee.....	6,250,000
Maryland.....	5,350,000
Virginia.....	4,700,000
Indian Territory.....	3,000,000
Texas.....	1,350,000
Georgia.....	400,000
Grand total.....	84,050,000

Not a bad total for a portion of the country "hardly scratched over," so far as its coal resources are concerned.

My best wishes to the MANUFACTURERS' RECORD and its readers, and every success and prosperity.

RECOVERY AT JELICO.

Joint Effect of Railroad Building and Coal Mining.

[Special Cor. Manufacturers' Record.]
Jellico, Ky.-Tenn., December 17.

Jellico's recovery from the great disaster which befell her last September has been rapid. Within three months great strides have been made toward wiping out every trace of the great dynamite explosion, which temporarily paralyzed every form of business; a new era of building has commenced, and confidence in the future of this section has been restored.

In the explosion of two cars of dynamite last September the number of lives lost will never be known. The number killed is estimated from 12 to 18, while probably 100 suffered injuries. Every building in the city was more or less damaged, and many large buildings were completely wrecked. The immediate effect of the disaster was to put a check to all building operations and the investment of capital in new industrial undertakings, but with a courage which knew no bounds the citizens at once proceeded to bring order out of chaos. Funds were raised for the assistance of the needy; workmen were at once brought into commission for the rebuilding of the city, and business has now resumed its former channels, with the prospects for a great expansion of commercial and industrial developments during the coming year.

On either side of the Kentucky-Tennessee line some vast coal developments are now under way. Some of the largest mining operations in the Kentucky-Tennessee coal fields are located here, and an immense coal tonnage is being gotten out. The building of new railroads has brought new coal fields in touch with development forces, and about 25 new mining operations have been started during the past year.

Among the larger coal mines here are those of the Proctor Coal Co., East Tennessee Coal Co., Kenesee Coal Co., Mt. Ash Coal Co., Italian-Jellico Coal Co. and Fall Branch Coal Co. These are all old operations, but increased mining facilities have recently been installed in several mines and a larger output is being obtained. Jellico coal is famed throughout the South for its excellent quality, and the name is synonymous with everything in coal that is desirable.

On the Kentucky side, in Whitley county, the Bird's-eye Railroad has been constructed into coal fields seven miles distant, and some extensive coal-mining operations are under way. Probably the largest operation is that of the Louisville Property Co. at Halsey, Ky. Five other operations are tapped by the Bird's-eye line, and a large tonnage is being obtained. The Louisville Property Co., affiliated with the Louisville & Nashville Railroad, owns the available coal territory in that section and subleases holdings to other concerns.

The building of the Louisville & Nash-

ville's extension from this city to Knoxville opened vast coal fields of the Tennessee side. Near this city the following new operations have been started: Southern Coal & Coke Co., Gatlin, Tenn.; Wesburn Coal Co. and Campbell Coal Co., Wesburn, Tenn.; Italy Coal Co. and Block Coal Co., Cull, Tenn. Along the new line preparations are under way for the opening of other mines, and all will directly benefit this city.

The construction of a 12-mile railroad up the Clear fork of Cumberland river last year brought an extensive coal field in touch with development. The Louisville & Nashville and Southern systems jointly operate the Clear Fork line, which begins at this city and proceeds the entire 12 miles through Campbell county, Tennessee. Although the new field has been opened but a year, several important mines have been opened, and shipments have already assumed extensive proportions. Among new mines are those of Clear Fork Coal & Coke Co., J. D. Templin, Middlesboro, Ky., president; Pruden Coal Co. of Knoxville, Clear Fork Coal Co., Jesse L. Rogers, president, Knoxville, and Straight Creek Coal Co., composed of George Easton, Middlesboro, Ky., and George Montgomery, Tazewell, Tenn. Other large openings will be made during the coming year.

Another railroad extension which will greatly benefit this city is now under construction from Southeastern Kentucky to Jellico. This is the Cumberland Railroad, which will extend 36 miles through rich coal fields. Ten miles are complete and in operation, and a large force of men is engaged in grading, tracklaying and boring tunnels for the remaining distance. Five operations have already been started along that line, among them that of the Bennett-Jellico Coal Co. of this city.

Some building projects of importance will be started in this city during the coming year. The Louisville & Nashville and Southern Railway systems, which give this section excellent shipping facilities, have planned a union depot, and construction work will begin at an early date. The new structure will be modern in every respect. The old station was considerably damaged by the explosion. Some large wholesale houses have been established here, and their market extends over a wide area in Kentucky and Tennessee. Among large industries is the Elk Valley Tannery, employing 100 men. This is a branch of the United States Leather Co.

W. S. HUDSON.

MONEY AT MEMPHIS.

Offers to Help the Finances of the City.

[Special Cor. Manufacturers' Record.]
Memphis, Tenn., December 15.

The commercial bodies of this city have actively taken up the matter of securing for Memphis the location of the subtreasury that, it is announced, will be located in some of the Southern cities. President Bickford of the Business Men's Club, President Shoemaker of the Memphis Cotton Exchange and President Battle of the Merchants' Exchange have arranged for committees to go to Washington and appear before the conference of Senators and Representatives upon whom Secretary Shaw has indicated that the actual choice of location will devolve. It is argued that Memphis, situated between St. Louis and New Orleans, where subtreasuries are located, could handle the business west as well as east, and is the logical point where the subtreasury should be located.

Illustrative of the plentifulness of large sums of money with Memphis financial institutions, the Bank of Commerce & Trust Co., one of the leading banks here, has offered to loan the city the sum of \$300,000 without interest, to be repaid by May 15,

when the first tax collections come on. The loan may be continued after that time by the payment of 5 per cent. interest. The bank will become the depository of future city funds arising from the later tax collections.

The Three States Lumber Co. of this city is preparing to build a large planing mill and box factory at Burdette, Ark. The firm has large cottonwood interests in this district. It also owns considerable gum stumpage in Arkansas. The firm moved to Memphis from Cairo about two years ago.

The Selden-Breck Construction Co. has commenced the excavation work for the handsome new *Commercial-Appeal* building that will stand at the corner of Court and 2d streets, facing Court square. The building will cost upward of \$160,000. It is to be four stories and a basement, and will be, when completed, one of the handsomest newspaper properties in the South.

The Memphis Merchants' Exchange has within the week taken the initiative for the whole country by establishing a future call board for cotton and cottonseed products. The object of the board is to give buyers and sellers of cottonseed products opportunities for making quick trades at open sessions. These calls will be made every day at 11 o'clock.

The cotton movement is again picking up in this district. That is one of the causes for the scarcity of cars. Another is the physical inability of the railroads to get enough power, and a third is the slowness of consignees in unloading.

NASHVILLE CLEARINGS.

Its Banking an Indication of the City's Prosperity.

[Special Cor. Manufacturers' Record.]
Nashville, Tenn., December 13.

Capital is the prerequisite of prosperity in any community, and to truly indicate prosperity the capital must be in action. For that reason the bank clearings of any city gauge its prosperity accurately, because they are as near an approximation as it is possible to secure of the movements of money. Nashville's bank clearings will this year run over \$200,000,000 for the first time in the city's history. Including 13 days of December, the actual amount of bank clearings in Nashville for the year have been \$191,936,272, and, striking an average for the remainder of December equal to the daily clearings to date, the necessary sum to throw the total over the 200,000,000-dollar mark is secured without stretching the reasonable expectancy of the banking institutions.

The rapid growth of Nashville in this respect will be seen at a glance from the following table, which shows the exact clearings for 12 years past and the approximate clearings for 1906:

1894.....	\$47,376,346
1895.....	48,747,724
1896.....	49,140,006
1897.....	55,129,599
1898.....	57,171,411
1899.....	69,181,466
1900.....	74,318,318
1901.....	79,390,995
1902.....	91,877,988
1903.....	124,589,656
1904.....	132,554,923
1905.....	160,153,955
1906 (estimated).....	200,936,272

The banking interests of Nashville are embodied in 16 institutions, which include several of pre-eminent standing, and as a whole give Nashville the reputation of being one of the best rated cities of its size in the country. That these institutions are growing steadily is proved by the increase of approximately \$40,782,317 in clearings this year over 1905.

The banking houses of Nashville are called on to carry a jobbing business which, according to latest reports, amounts to \$131,000,000 a year, besides a large manufacturing element requiring much capital and a retail trade amounting to about \$18,000,000 a year. The lines of

trade in which Nashville's jobbing business amounts to \$100,000 or over are shown in the table below, which is the latest tabulation:

Agricultural implements, etc.....	\$3,000,000
Beer.....	1,000,000
Boots and shoes.....	7,500,000
Coal.....	1,350,000
Caskets and burial goods.....	500,000
Cotton.....	2,000,000
Crockery, queensware.....	400,000
Clothing.....	1,800,000
Drugs.....	1,600,000
Dry goods.....	9,400,000
Fertilizers.....	4,350,000
Produce.....	2,300,000
Stoves.....	1,500,000
Furniture.....	2,400,000
Ginseng.....	100,000
Grain.....	25,500,000
Groceries.....	11,000,000
Hats.....	1,100,000
Hardware.....	5,000,000
Hides.....	700,000
Liquors.....	2,800,000
Live-stock.....	4,700,000
Tobacco-manufactured.....	3,000,000
Lumber.....	7,800,000
Millinery.....	1,000,000
Paving.....	1,250,000
Printing and publishing.....	4,000,000
Saddlery and harness.....	1,500,000
Trunks and valises.....	450,000
Wool.....	250,000
Varied industries.....	22,250,000
Total.....	\$131,000,000

There are said to be in Nashville also 600 manufacturing plants, with an aggregate capital of \$18,000,000 and manufacturing about 125 different articles. These figures, of course, are not absolutely accurate, but are the result of a careful research which does not miss the truth far enough to be misleading, and, moreover, establish a high standing for the city as a producer of commercial commodities as well as an important factor in the distribution of commerce.

HAYNES MCFADDEN.

Iron and Steel Output in 1906.

[London Iron and Coal Trades Review.]

It is hardly likely to be disputed that the year 1906 has been a highly favorable year for the iron and steel industries. It has not been so satisfactory for the coal industry, although towards the close of the year it showed considerable improvement. In both industries alike it has surpassed every previous year in respect of the quantities produced.

Some months ago we ventured to anticipate that the iron output of the world in the year 1906 would not be much under 60,000,000 tons, which compares with 55,000,000 tons in 1905. This anticipation may now be regarded as having been fully realized. The actual pig-iron output of 1906 may be nearer 61,000,000 tons than 60,000,000.

The only details of this vast output that are officially available at the present time are the following, for the first half of 1906:

Pig-Iron Output for the First Half of 1906.	Tons.
United States.....	12,602,000
United Kingdom.....	4,905,000
Germany.....	6,074,000
France.....	1,574,000
Belgium.....	689,000
Canada.....	282,000
Total.....	26,126,000

In the year 1905 the other ironmaking countries had a total output of about 7,000,000 tons. If we double the figures above tabulated in order to get at the production for the second half of 1906, we have an output for that year of over 52,000,000 tons, and if we assume that the other countries only produced as much in 1906 as they did in 1905, namely, 7,000,000 tons, the total output of 1906 would be brought up to 59,000,000 tons.

But we know that the output for the second half of 1906 was larger than that for the first half, taking the world as a whole. This is made evident by the partial statistics published for the United States, for Germany, which has produced nearly 500,000 tons more in the second half of the year; for Great Britain, which, like most other countries, has been working most of her furnaces to the utmost limits of their capacity, and for other countries. The output of the last six

months of 1906 is likely to have been nearly 1,000,000 tons more than that for the first half for those countries. Finally, it is known that in some, at least, of the countries not tabulated above, which had an united output of some 7,000,000 tons in 1905, there has been a material increase of pig-iron production in 1906, justifying, as we think, the belief that the total world's output in that year will be about 61,000,000 tons.

The following computation is adopted, with, of course, a due amount of reserve under the circumstances stated, as being likely to approach very near to the pig-iron output of the year 1906 as finally ascertained:

Make of Pig-Iron in Different Countries in Each of the Years 1900 and 1906, with Increase in 1906.

Country.	Production in year		Increase
	1900.	1906.	
United States.....	13,789,000	25,602,000	11,813,000
Germany.....	8,456,000	12,273,536	3,817,536
United Kingdom.....	8,908,000	10,105,000	1,197,000
France.....	2,699,000	3,873,504	1,174,504
Belgium.....	1,018,000	1,448,065	430,065
Russia.....	2,875,000	3,000,000	125,000
Austria-Hungary.....	1,540,000	2,000,000	460,000
Sweden.....	513,000	600,000	87,000
Spain.....	236,000	400,000	164,000
Italy.....	25,000	140,000	115,000
Canada.....	86,000	582,000	496,000
Other countries.....	300,000	500,000	200,000
Totals.....	40,543,000	60,524,505	19,981,505

Not many people are aware of the actual extent of the development of the iron trade of the world during recent years, although there is a general acquaintance with the broad fact that it has been considerable. What, however, will be thought of the fact that since 1900 the increase in the output of pig-iron has been more than equal to one-half of the total output of pig-iron in the world at large in that year. In other words, it is pretty clearly demonstrable—within a very narrow margin of possible error—that between 1900 and 1906 the increased make of pig-iron has been about 21,000,000 tons, the total make of 1900 having been only 40,500,000 tons, while that of 1906 will be about 60,500,000 tons! Where has this enormous difference gone? If it has gone into special and temporary consumption, will that consumption become regular and permanent? And if not, to what extent is it likely to recede? Most authorities are persuaded that the figures of the present time have come to stay, and even to increase very materially from period to period. Ironmakers in most countries are laying their plans for the future on that assumption. At the present time the United States alone are engaged in the building of new blast furnaces that will enable them to add nearly 3,000,000 tons a year to their already enormous output. Most other countries are making arrangements tending to the same end, although in varying degrees. The United States alone are likely to be able to produce 3,000,000 tons more in 1907 than they will have produced in 1906. Other countries may be found able to produce 2,000,000 tons more in 1907 than in 1906. Hence the total output of 1907 may not unlikely be 5,000,000 tons more than in 1906, and the output of 1906 has been, perhaps, fully 5,000,000 tons more than that of 1905. Such jumps cannot be continued indefinitely, so that they may be regarded as abnormal.

It is only possible to form a rough estimate of the output of steel in 1906. The British Iron Trade Association is the only organization that publishes the statistics of steel output oftener than once a year, and as regards most countries there is not even an attempt at an estimate for shorter periods. But there can be no doubt that the output of steel usually follows the output of pig-iron, not less than three-fourths of the total pig-iron output of the world being employed in the steel manufacture. It will be a safe conclusion to assume that the percentage and amount of increase in pig-iron will be pretty accurately reflected in the output of steel. We may therefore

state that the increased make of steel in 1906 will not be less than 4,500,000 tons, and may possibly reach a considerably higher figure. This increase is not equal to that of the output of some previous years. In the period 1900-1905 the world's make of steel by the Bessemer and open-hearth processes increased from 21,186,000 tons to 41,321,000 tons, being an advance of 17,135,000 tons, or 71 per cent. This again, like the advance in the corresponding output of pig-iron, largely exceeds the advance made in any former period of equal duration. The following table presents the figures:

Output of Steel by Principal Countries in 1900 and 1905.

Country.	Tons.		Increase
	1900.	1905.	
United States.....	10,087,000	19,912,000	9,825,000
Germany and Luxembourg.....	4,799,000	10,066,000	5,267,000
Great Britain.....	4,901,000	5,814,000	913,000
France.....	1,824,000	2,110,000	286,000
Belgium.....	655,000	1,173,000	518,000
Russia.....	1,560,000	1,550,000	90,000
Sweden.....	310,000	358,000	48,000
Spain.....	150,000	238,000	88,000
Totals.....	24,186,000	41,321,000	17,135,000

There has been an increased output of steel in the same period in Italy, Austria-Hungary, Japan, Canada and other countries, but the total further increase will be under 1,000,000 tons.

WOODSTOCK PROPERTIES SOLD.

A Furnace Deal Reported to Involve \$2,000,000.

[Special Dispatch to Manufacturers' Record.] Birmingham, Ala., December 18.

The Woodstock furnace at Anniston has sold all its properties, including furnaces, ore and coal mines at various points, to a company of which J. M. Barr, formerly president of the Seaboard Air Line Railroad, is the president, J. B. Carrington is vice-president and general manager and H. T. De Bardeleben is in charge of furnaces and mines. It is current report that the deal involved \$2,000,000, and that special effort will be made to obtain speedy operations. The coal mines and coke plant at Newcastle, in this county, are included in the deal. Both zeal and money will be freely used to place this property in the list of profitable producers.

The Woodstock properties include two blast furnaces with an annual capacity of 150,000 tons of foundry and forge pig-iron, 374 coke ovens with an annual capacity of 155,000 net tons, red and brown iron-ore lands, coal and iron mines and limestone quarries. Present officers of the Woodstock Iron Works include S. M. Lehman, president, 22 William street, New York, and P. J. Goodhart, treasurer, 57 Broadway, New York.

There was a sale yesterday of 3000 tons on a basis of \$18.75 for No. 2 foundry, third quarter delivery, Birmingham.

J. M. K.

SOLD IRON STACKED IN YARDS.

For Birmingham Cannot Get Enough Cars.

[Special Cor. Manufacturers' Record.] Birmingham, Ala., December 17.

The price of iron is being maintained with great firmness, and the end is not yet. What is called spot iron has sold during the past week at \$22.25, \$22.50, \$22.75, and some at \$23 and up to \$24, all for No. 2 foundry. One lot of 300 tons sold at \$22.75 for No. 2 foundry, \$22.25 for No. 3 foundry and \$19 for gray forge. For the first quarter of 1907 sales were made from \$21.50 up to \$22 for No. 2 foundry, and sprinkled in some of the lots were other grades at irregular differences. For the second quarter sales were booked at \$20 for No. 1 foundry and \$19.50 for No. 2, with some sales at \$19. For the third quarter there have been some sales at \$18.50. But it is a hard matter to buy iron for the third quarter delivery. Some

important interests won't make quotations for that delivery. The Sloss Company's sales for the week were 11,000 tons for the second quarter on price basis outlined above. With their usual conservatism as to overselling their production, they have notified their agents that they can supply but a few thousand more tons for second quarter delivery, which they are directed to place with regular customers, because when it is absorbed they will have no more iron to offer for second quarter delivery. This lot will be absorbed during the coming week, and the Sloss Company will retire then as sellers for delivery the first half of 1907. The Republic-Tennessee Company has retired from the market for that delivery. This will place the two largest producers out of the market for the first half of 1907, and leaves it open free from their competition.

There are four stacks "out" now, with a strong probability that this number will be doubled before the opening of the new year. This is anticipated by some of the operators, because the reserve stocks of ore have been exhausted. Months ago all the interests that could do so adopted the policy of accumulating surplus supplies to guard against the accidents which more or less happen to the detriment of continuous production. Where is all this accumulated surplus? It has been fed to the furnaces. The reserve piles have melted away, and there is not a single furnace that does not depend upon daily receipts of material to keep it going. With favorable weather so far, the furnaces have "by hook and by crook" managed to keep in blast, but they are not getting maximum results in the way of output. What will be the result when bad weather and "the Christmas off" take a hand. Anticipating results, some of the interests have endeavored to induce their miners and operatives to "lay off" but two days for Christmas. So far the response is not favorable, and we are sure to see a further falling off in the output of iron. This is the key to the indisposition to offer iron for forward delivery in any but very moderate lots.

The sales made for the third quarter have in some instances been withheld, because sellers were indisposed to engage all their anticipated output. At the last moment one of them has given in as his sales for that delivery 3000 tons. The delivery can be stretched to run into the fourth quarter. There were also sales of 1000 tons at \$18.50 for delivery the last quarter of 1907, and one of 750 tons at same price. At this writing the trade here is not apprised of these sales. There is much trepidation among the sellers, as well as among the buyers, as to the continuance of these prices, but it is a notable fact that all the iron offered for 1907 delivery is readily absorbed. The warning is given that unless labor conditions at the furnaces and at the mines improve there will be trouble during the entire year of 1907 in making satisfactory deliveries.

Every furnace interest here has its yards piled with iron that cannot be shipped. It is sold. The buyers are anxious to get it and the sellers are anxious to deliver it. The railroads can't place the cars for it. Some, favored by fortuitous circumstances, move some, but the mass of shippers plead vainly for cars.

The Republic-Tennessee Company has 30,000 tons on its yards belonging to buyers. The Sloss-Sheffield Company has 25,000 tons in the same fix. The Woodward Iron Co. has 7000 tons. The Alabama Consolidated is in the same boat as are the other companies, and if the number of cars needed to clean them up was computed the result would be a fine object-lesson as to the tonnage originating here. It is an actual fact that cars loaded two

months or more ago are still standing awaiting motive power to move them. But the subject of car shortage is a threadbare one. Woodlawn, one of our suburbs, has on side-tracks and shunts 1500 empty cars belonging to one line waiting admittance to the repair shops for overhauling. Emergency work has preference, and they must wait their turn, and this is indefinite. The roads are adding to motive power, and it is announced that the Queen & Crescent Route has secured 50 high-power locomotives to be delivered by July 1, 1907. Some of them will fall to this district. But they are not available now.

In the iron industries there prevails great activity. In the line of pipe it is usually dull at this time of year, but inquiries covering 1907 are very encouraging, and contracts are being made. New Orleans looms up with a contract for 28,000 tons of pipe to be let not later than early spring. Birmingham is after it, and will land it. Quotations of pipe are for—

Four and six-inch, \$32.

Eight, ten and twelve-inch, \$31.

Large sizes \$30, with sales quite frequent.

Soil pipe is quoted:

Two to six-inch, 50 and 10 off.

Extra heavy, 65 and 5 off.

Fittings, 70 and 10 off. These prices include delivery at jobbing points throughout the Union.

Quotations for scrap and old material are:

Old iron rails, \$16.

Old iron axles, \$20.

Old steel axles, \$16.50.

Old car wheels, \$18.

Old borings, \$10.

Old S. P. castings, \$12.

Malleable castings, \$15.50 to \$16.

Railroad malleable, \$16.

Wrought-iron pipe and flue, \$12.50.

No. 1 railroad wrought, \$20.

No. 2 railroad wrought, \$16.

Hardie-Tynes Company report fine trade, and are compelled to turn away proffered business. They say the extent and character of their business is increasing right along. They report among their important contracts two 1000-horse-power cross-compound engines, condensing, connected to generators for Pennsylvania parties, and two of 600 horse-power each of the same type for Oklahoma City; also one of 800 horse-power for North Carolina. They are also making heavy hoisting engines and air compressors for this district.

The McCune Iron Co. report an extraordinary run of orders, and they are completing contracts for two furnace shells, 10 stacks, 10 draft stacks, besides diverting themselves with miscellaneous business amounting to \$20,000. With business in hand approximating \$175,000, life to them seems well worth living.

Coke is in importunate demand, and finds ready market at \$4.50, sometimes Birmingham and sometimes oven delivery. The facts above reported show clearly that this point is having a great prosperity. In the statements made care has been taken to deal in facts only. They show with what giant strides we have advanced. At the head of iron interests of the South, we are aiming at leading the world. Not satisfied with that, we aspire to be the money center of the South, and with the momentum of successful accomplishment in other things we have gone wooing for the location of a subtreasury here. We will get it, for we are going for it with a vim that is allied to success. Opportunity has knocked at our gate and is being embraced.

There are other things on our list well worth their mention, but space warns the writer that they had better be postponed to a more convenient time. J. M. K.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

LOUISVILLE & NASHVILLE.

Many New Pieces of Line Built and Many Others Under Way.

Mr. W. H. Courtenay, chief engineer of the Louisville & Nashville Railroad, sends the MANUFACTURERS' RECORD information with reference to track laid on new lines and extensions of the system, exclusive of sidings, during 1906, as follows:

"Cumberland Valley Division—Branch up left-hand fork of Straight creek, 3.90 miles in length, of which 2.45 miles were laid during the year. This branch diverges from the Straight Creek branch near Pineville, and extends into the coal property of the Straight Creek Coal & Coke Co. It is located for its entire length in the State of Kentucky.

"Major branch extension, aggregating 2.20 miles in length, diverging from a point on the Chenoa branch, or the Cumberland River & Tennessee Railroad, near Olcott, Ky., has been constructed. This branch is in the State of Kentucky, and extends to the coal property of Mr. Clyde Miller.

"A spur line diverging from the Blue Creek extension of the Birmingham Mineral division at Yolande, Ala., extending 1.12 miles to the coal mines of the Yolande Coal & Coke Co., all in Alabama, has been completed this year.

"During the year the revision of line and grades between Corbin, Ky., and Saxton, Ky., a distance of 25.9 miles, will be completed, 10.8 miles of this work being done in 1906.

"Of the revision of line and grades between Greenbrier, Tenn., and Guthrie, Ky., a distance of 25.70 miles, 16 miles being done in 1906.

"Of the 88.2 miles of new line from Etowah, Tenn., to Cartersville, Ga., known as the Atlanta division, the portion lying between Crandall, Ga., and Junta, Ga., a distance of 51.2 miles, was completed during the year.

"The Alaculsky spur, from Crandall, Ga., to Alaculsky, Ga., a distance of 1.20 miles, was also finished; the Maryville spur, extending from Armona, Tenn., to Maryville, Tenn., a distance of 3.90 miles, will probably be completed, and the Crooked Fork spur, from Kilsyth, Tenn., to Roosevelt, Tenn., 1.60 miles in length, was finished in 1906.

"In 1907 the work of revising the line and grades on the Henderson division between Greenbrier, Tenn., and Guthrie, Ky., will be completed. This all lies in Tennessee.

"The revision of line and grades on the Kentucky division from Corbin, Ky., to Livingston, Ky., a distance of 31.70 miles, is now under way.

"The construction of the Pine Mountain Railroad from Williamsburg, Ky., to Trace Branch, Ky., a distance of 22.60 miles, will shortly be undertaken.

"The Skelton Creek extension of the Cain Creek branch of the North Alabama Railroad, extending from Vulcan, Ala., to Skelton Creek, Ala., 13.70 miles, will be completed early next year.

"A spur diverging from the Skelton Creek extension, 11.6 miles from Vulcan, Ala., some 2.40 miles in length, and extending to the mine of the Lacey-Buek Company, is under way, and will be completed in 1907.

"The construction of double track and change of grade, Graces, Ala., to Hardy, Ala., about 17 miles, is now under way, and is expected to be completed some time during next year.

"The construction of a branch diverging from the main track of the South &

North Alabama Railroad near Helena, Ala., and extending about six miles into the Actin coal basin, will also be completed during 1907.

"A spur track about one and one-half miles long, extending from the O'Connor branch of the Alabama Mineral division at Gadsden, Ala., to the plant of the Alabama Consolidated Coal & Coke Co., will be constructed next year.

"A spur line 1.88 miles in length, being virtually an extension of the Hogeland branch, which latter diverges from the Linton branch near Coaldale, Ala., will be built to reach coal-mine property of the Warrior Coal & Coke Co."

DALLAS TO SHERMAN.

Unique Features of a New Electric Railway Plant in Texas.

Contracts have been let by the Texas Traction Co. for the equipment of a 65-mile electric railway between Dallas and Sherman, Texas. The new line will parallel the existing steam road between the two cities, and will be one of the longest electric railways in the State. While the apparatus is standard direct current throughout, the equipment in some respects presents several features of interest.

The country through which the new line is laid out is flat and rolling, there being no grades exceeding 1 per cent., and a maximum curvature of but 3 degrees. In order to have a clear headway for operating cars, a private right of way has been established by the company, so that the run between Dallas and Sherman will be made in 2 hours and 30 minutes. This schedule includes a 15-minute run within the city limits of Dallas, where the cars must necessarily be operated at lower speeds. While the main traffic will be of an express nature, stops have been provided about every two miles to take care of the local travel.

Fifteen car equipments will be provided to maintain the initiative schedule. These will be of the standard interurban type, each 50 feet long and equipped with four G. E.-73 (75 horse-power) standard direct-current motors equipped with the Sprague-General Electric type M system of multiple unit control. Each car will be further provided with General Electric air-brakes and compressors.

Power for the new road will be generated by steam at McKinney, a town located about midway between Dallas and Sherman. The main power-station equipment will include two 1000-kilowatt Curtis steam turbo-generators, working under a steam pressure of 150 pounds at the throttle with 125 degrees superheat. The turbines will operate condensing. Current will be generated at 2200 volts and 25 cycles and stepped up for transmission to 19,100 volts. For exciting the fields two 35-kilowatt generator sets will be provided.

The three-phase current from each of the turbo-generators will be transformed in a set of three 330-kilowatt air-blast transformers. One transformer of the same capacity will be installed as a reserve. To supply air for cooling, duplicate blower sets will be furnished, one set being driven by an induction motor, the other by a direct-current motor. Each blower will have a capacity of 10,000 cubic feet.

One of the special features of interest in the new road lies in the rotary converter equipment. Six substations will be provided, including one at the main station and a portable equipment. This last-mentioned substation comprises a special car containing a 300-kilowatt rotary converter, air-blast transformers and suitable switching apparatus for cutting into the transmission system wherever necessary. The portable substation renders unneces-

sary the duplication of rotary converters at the fixed substations, for the portable equipment can be shifted to various parts of the line and used as an emergency station or auxiliary in case of need.

Regular substation equipments are to be provided at the main station and at four points distributed along the railroad. Each of these substations will be equipped with a 300-kilowatt 600-volt rotary converter with the necessary switchboards, oil-cooled transformers and lightning arresters.

The substations will be interconnected by high-tension transmission lines operated initially at 19,100 volts. Eventually, however, a transmission potential of 33,000 volts will probably be used, and for this purpose taps will be provided for Y connection of the transformers. With the few exceptions noted the new line follows, in general, the standard direct-current practice of the General Electric Co.

NEW CONSTRUCTION WORK.

What Various Railroads Have Done During the Year and What They Will Do.

Mr. J. C. Bradley, superintendent, writes from Clay, W. Va., to the MANUFACTURERS' RECORD that the Buffalo Creek & Gauley Railroad Co. has completed its line, which is stone-ballasted, for eight miles from Dundon, on the Coal & Coke Railway immediately across the Elk river from Clay Courthouse, to Gulf, the last three miles of the line from Hamric's Run to Gulf being laid this year. New contracts have been let for additional construction, and the road is being pushed through Nicholas county, West Virginia, to Camden-on-Gauley, on the Baltimore & Ohio in Webster county, West Virginia. The road is doing a regular freight and passenger business on the part already built.

Mr. F. B. McCutcheon, chief engineer of the Gulf & Ship Island Railroad, writes the MANUFACTURERS' RECORD that the company has no extensions or new lines under contract or survey, nor is any expected next year. Concerning the completion of the Columbia division, which is a loop line 104½ miles long from Maxie, Miss., 44 miles north of Gulfport, to Mendenhall, Miss., 128½ miles north of Gulfport, he says that the gap of 16½ miles of track was completed on the Silver Creek branch on April 19 last and the line was opened for business on April 29. The Silver Creek branch now connects the Mendenhall branch and the Columbia branch, thus making the loop line above named. The stations on the newly completed line between Silver Creek on the north and Columbia on the south are Arm, Oakvale, Hathorn and Goss.

The Southern Railway Co. furnishes the MANUFACTURERS' RECORD a statement of mileage built during the year showing as follows: On the Cumberland Railway from Hyde, Tenn., to a point on the main stream of Clear fork in Kentucky, 10.8 miles; on the Delta Southern Railway from Elizabeth to Napanee, Miss., 6.06 miles; from Percy to Richey, Miss., 10.56 miles; from Ittabena to Belzoni, Miss., 26.80 miles; total, 43.42 miles; on the Nashville & Mississippi Delta Railway from Vardaman to Calhoun City, Miss., 8.2 miles. Besides this, several short pieces of line in the way of spurs and extensions of spurs to industries have been constructed; also the cut-off, 3.3 miles long, from Mobile Junction to North Bessemer, Ala. In addition to this work the company has put in operation this year double track as follows: 45 miles between Danville, Va., and Spencer, N. C.; 20 miles between Knoxville, Tenn., and Morristown, Tenn., and 4 miles between Peyton and Austell, Ga. This track is not

continuous, but different pieces are in operation.

Santa Fe Double Track.

Mr. C. A. Morse, chief engineer of the Atchison, Topeka & Santa Fe Railway, Topeka, Kans., writes the MANUFACTURERS' RECORD with reference to a recent press report that the company contemplated double-tracking its lines in Missouri. He says:

"The coming year we expect to build double track from Ancona, Ill., to Edelstein, Ill.; also from Knox to Smithshire. This will give us double-track line in Illinois from Chicago to Edelstein and from Knox to Fort Madison. We are at present building double track west of Fort Madison, and expect to extend this during the coming year west to a connection with the portion built the past year between Bucklin and Rothville, making second track from Fort Madison, Iowa, to Rothville, Mo. From Carrollton, Mo., to Camden, Mo., arrangements are being made with the Wabash whereby we will use the Santa Fe and Wabash jointly for double track, the two lines being parallel between these points.

"This work is all carried on under the engineer of the Eastern Grand division, and is done by his several assistants in the field. The changes of line being made are being located by Mr. Woodbury Howe, locating engineer."

New Equipment, Rails, Etc.

The Coal & Coke Railway Co. has given an order to the South Baltimore Steel Car & Foundry Co. of Baltimore, Md., for 300 hopper coal cars of 50 tons capacity.

The Queen & Crescent Route has ordered 50 new locomotives, most of them being freight engines.

The Louisville (Ky.) Railway Co., according to a report from that city, will purchase 50 new cars.

A report from Victoria, Texas, says that the Texas Railway Co. has given an order for 19,000 tons of steel rails to the Carnegie Steel Co., this being in addition to 5000 tons previously ordered.

The Georgia & Florida Railway Co., according to a report from New York, has ordered 32,000 tons of steel rails.

United Cities Traction Co.

Ira L. Reeves, president of the United Cities Traction Co., Muskogee, I. T., writes the MANUFACTURERS' RECORD that the company is capitalized at \$100,000 and will build at present four miles of standard-gauge electric railway. It will open the townsite of Fort Smith, Okla., amounting to 800 acres. The road will handle freight as well as passengers, and will ask for connections with several steam roads. Work will begin January 1. The company has bought little material. Mr. Reeves' office is in the Reeves Building at Muskogee, where H. G. Baker, general solicitor, is also situated. The other officers are J. W. Underwood, secretary, and J. T. Nelson, treasurer, both at Fort Smith, Ark.

Romney to Moorefield.

Mr. John J. Cornwell, general attorney of the Hampshire Southern Railway, Romney, W. Va., writes the MANUFACTURERS' RECORD that Mr. J. Sloan Kuykendall is securing right of way for the line up the South branch valley. The road has been financed, and will probably be constructed during the coming year. The length of the line is 38 miles from Romney via Moorefield to Petersburg, W. Va., connecting at Romney with the South Branch Railway, which is a branch of the Baltimore & Ohio. Mr. A. Spates Brady of Fairmont, W. Va., is the engineer in charge.

A press report quotes Mr. Cornwell as

saying that contracts will probably be let in January, and that the surveys have been made.

Ozark Transit Co.

Mr. J. J. Burns, president of the Ozark Transit Co., 527 Victoria Building, St. Louis, Mo., writes the MANUFACTURERS' RECORD that the company proposes to build about 100 miles of line through a fruit, farming and mineral country, but it is the intention to eventually construct more than the above amount of railway. The company is doing its own construction, and there will be no contracts let for track. The general office of the company is at Waynesville, Mo., but Mr. Burns is manager as well as president, and all business is transacted through the St. Louis office.

Chattanooga to the Red River.

Concerning the extension of the Lawton-Chattanooga branch in Oklahoma, an officer of the Chicago, Rock Island & Pacific Railway informs the MANUFACTURERS' RECORD that a survey has been made from Chattanooga, Okla., south to the Red river, but no further. There is no intention to extend the line to Wichita Falls, and it is not decided whether it will or will not be built. The line is 21 miles long, but does not pass through any towns, and at present there is no engineering force on it.

Railroad Notes.

Mr. William Henry White of Norfolk, Va., who has been elected president of the Richmond, Fredericksburg & Potomac Railroad, will, according to a report from Richmond, accept the position and will move to that city.

Mr. Fairfax Harrison, assistant to the president of the Southern Railway, has been elected a vice-president of the company, and will continue to occupy close relations with the president's office concerning the financial affairs of the company.

The first freight train to run through over the newly-completed line of the Louisiana Railway & Navigation Co. from Shreveport to New Orleans has arrived in the latter city. Passenger trains are not to be operated through until after January 1.

New Enterprises at Stanton, Ky.

The little city of Stanton, Ky., is not lacking in new enterprises, several announcements having been made recently of plants to be established there. Among these is the Stanton Canning Co., which proposes to have an output of one carload per day. Its plant will cost \$5950. A plant with a daily output of 350 barrels of cement is being established by the Patrick Cement Co., and the prospects are good for the erection of an iron foundry and a large brick and tile works in the near future. Fire-clay and various other kinds of clays are found near Stanton, and both coal and gas are within easy reach. Brief reference to these enterprises is made in a letter to the MANUFACTURERS' RECORD from J. C. Patrick, president of the Patrick Cement Co. Mr. Patrick states that what Stanton needs especially is capital.

It is reported that the First State Bank of Emma, Texas, has been reorganized as the First National Bank of Emma with \$25,000 capital. L. F. Lester of Canyon, Texas, is president; E. B. Covington, vice-president, and Wright Gunn, cashier, both of Emma.

Since 1902 the taxable value of real estate of Columbia, S. C., has increased more than \$1,500,000, the value this year being \$5,767,370, an increase over last year of more than \$1,000,000.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS' RECORD. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

Held Their Annual Meetings.

The annual meetings of the Lanett Cotton Mills, the West Point Manufacturing Co., the Riverdale Cotton Mills, the Lanett Bleachery and Dye Works and the Chattanooga Valley Railway Co. were held at West Point, Ga., on December 13, and the usual dividends were declared. The subject of enlarging the plants was mentioned, but it was decided that the companies could not give consideration to this until they were better satisfied that plenty of labor can be secured. Directors and officers were elected as follows: Lanett Cotton Mills—L. Lanier of West Point, president; George H. Lanier of West Point, vice-president, and Francis B. Sears of Boston, Mass., treasurer. West Point Manufacturing Co. and the Riverdale Cotton Mills, respectively—L. Lanier, president; George H. Lanier, vice-president, and Horace S. Sears of Boston, treasurer. Lanett Bleachery and Dye Works—W. H. Wellington of Boston, president; L. Lanier, vice-president, and J. E. Gale, treasurer.

The Dresden Cotton Mills.

The MANUFACTURERS' RECORD of May 31 presented details of the plans of the Dresden Cotton Mills for building a cotton factory at Lumberton, N. C. This new company has since been making steady progress with the construction work, and in a few weeks is expected to begin manufacturing. Its plans called for the erection of a one-story and basement structure 80x245 feet, with a 40x80-foot wing for engine and boiler room. The textile machinery being installed is 10,000 spindles and accompanying equipment for the manufacture of yarns. A cross-compound Corliss engine of condensing type will furnish the power, to be distributed through the mill by rope drive. The Dresden Cotton Mills organized with a capital stock of \$200,000, and its officers are prominent mill men of the Lumberton section. Mr. R. D. Caldwell of the Lumberton Cotton Mills (a 12,000-spindle plant) is president.

Loudon Hosiery Mills.

Some months ago the MANUFACTURERS' RECORD referred to the organization of the Loudon Hosiery Mills of Loudon, Tenn. This new company has since erected its buildings and now has the machinery in position ready to begin manufacturing. Its equipment includes 35 knitting machines, 40 ribbers and 12 loopers, employing 125 operatives, to produce from 300 to 400 dozen pairs of misses' hosiery every day. Mr. R. H. Bell is president; A. W. Ward, vice-president, and C. H. Bacon, secretary-treasurer. The company has an authorized capital stock of \$50,000, and \$35,000 is paid in.

A Big Addition Planned.

The directors of the Ide Cotton Mills of Jacksonville, Ala., have called a meeting of stockholders for January 14 to vote on increasing the company's capital stock from \$200,000 to \$750,000. This increase is for the purpose of providing funds for the erection of another mill to be equipped with 25,000 spindles and erecting a new power plant for both the present plant and

the new one. It is proposed to drive both mills by electricity.

Enlarging the Pomona Mill.

It has been decided to enlarge the plant of the Pomona Cotton Manufacturing Co. of Greensboro, N. C., and contract for the machinery has been awarded. This new machinery and accompanying carding apparatus, etc., is now arriving and being placed in position. The Pomona Company has been operating 10,750 spindles and 330 looms, and finds the increased equipment necessitated by the demand for its product, which is cotton cloth.

Del Rio Cotton Mills.

The Del Rio Cotton Mills of Del Rio, Tenn., is understood to be organizing for the purpose of building a plant, construction to begin in February. Messrs. John N. Adams of Del Rio, M. H. Wheeler of Neenah, Wis., and Geo. M. Ryall of 150 Nassau street, New York, are mentioned as interested. Mr. Adams was referred to in the MANUFACTURERS' RECORD of October 4 as proposing to form a mill company.

Lampwicks for Turkey.

Southern textile manufacturers may be interested in advices received by the MANUFACTURERS' RECORD from Jacques Nahum of Smyrna, Turkey. Mr. Nahum states that he wants to correspond with some reliable makers of lampwicks, to whom he will give a first order of 30,000 kilos, according to samples furnished. (Mr. Nahum's address recently erroneously stated as Smyrna, Arabia.)

A New Texas Company.

The All Cotton Mattress, Comforter & Bating Co. of Rockwall, Texas, has been incorporated with a capital stock of \$10,000 for general cotton-manufacturing purposes. Its incorporators are Messrs. W. C. Bishop and E. D. Force of Rockwall, J. W. Allison of Ennis, Texas, and J. W. Hoover of Fort Worth, Texas.

Wants Camel's-Hair Press Cloth.

One of the best-known makers of oil-mill machinery wants to purchase camel's-hair press cloth to be shipped abroad, and invites manufacturers of this cloth to correspond promptly. The manufacturer referred to is the G. H. Bushnell Press Co. of Thompsonville, Conn.

Wants Cotton Patches.

Messrs. A. M. Lockett & Co., 343 Barronne street, New Orleans, La., write the MANUFACTURERS' RECORD that they want to correspond with dealers in cotton patches—clippings and short pieces from cotton bagging—used by compress companies.

Textile Notes.

The Irene Cotton Mills of Gaffney, S. C., is reported as to double its plant.

The Bonnie Cotton Mills of Kings Mountain, N. C., is said to have awarded contract for 2500 twister spindles.

The Walton Cotton Mill Co. of Monroe, Ga., is reported as having decided to double its present plant, operating 5000 spindles and 156 looms.

An important contract is now being filled by the Itasca (Texas) Cotton Mills. It calls for 950,000 yards of cloth, and the company is producing 15,000 yards daily.

The Lillian Knitting Mills of Albemarle, N. C., is said to be considering the installation of addition machinery. It has recently added to its knitting and dyeing equipment.

The Toxaway Mills of Anderson, S. C., is reported as having awarded contract for and now receiving about 4000 spindles and

110 looms additional. The company has been operating 12,000 spindles and 368 looms.

It is reported the Southern Manufacturing Co. of Athens, Ga., contemplates doubling its present plant of 7728 spindles and 184 looms. This company manufactures cotton flannels and employs from 230 to 250 operatives.

The Hopedale Mills Co. of Burlington, N. C., is reported as having begun the erection of another story to its present building in order to provide space for 2200 twister spindles which are to be installed. Company's present equipment is 6200 spinning spindles and 2000 twister spindles.

The Commercial Knitting Co. of Greenville, N. C., has increased its capital stock from \$26,000 to \$36,000, as recently reported. It has erected an addition, which will be equipped for bleaching, and the machinery has been ordered. Another improvement in progress is changing the gasoline power plant to steam power.

The Selma Knitting Mills of Selma, N. C., is reported as to add 40 knitting machines early in 1907. This company was mentioned in the MANUFACTURERS' RECORD of September 20 as having completed its plant, about to begin manufacturing with 20 machines, and proposing to increase later to 60 or possibly 100 machines. Dyeing and finishing machinery is also said to be contemplated. The company has a two-story 100x40-foot building for its dyeing and finishing department.

It is reported that S. B. Tanner, president of the Henrietta Mills, Henrietta, N. C., has purchased and will develop the Green River Falls water-power property on the Green river near Hendersonville, N. C. From 600 to 700 horse-power is said to be available, and this is to be transmitted by electricity for operating a large cotton factory which reports state Mr. Tanner and associates will build at or near Hendersonville. This mill referred to last week in unconfirmed reports of new textile-manufacturing enterprises.

Gulfport.

Mr. S. C. Gardner, secretary of the Progressive Business League, writes to the MANUFACTURERS' RECORD as follows:

"Gulfport is steadily going forward in all lines. Business is brisk and shipping strong.

"The Gulfport & Mississippi Coast Traction Co. is pushing its work of extension of its lines along Twenty-fifth avenue to the Cotton Oil & Fertilizer Co. Gulfport will soon be well equipped with street railway service. The rails are 80-pound steel, ties creosoted, and the equipment up to date in every respect, the cars being large and heavy, with airbrake.

"There are about 12 very fine beach residences being built by owners, who will live in them. There is a great deal of building in all lines, especially smaller residences for sale and for rent.

"The Commercial and Business Leagues of Gulfport and Biloxi have in joint session appointed delegates to meet with the Board of Supervisors and insist that a magnificent beach driveway or shelled boulevard be made at once from Pass Christian to Biloxi through the cities of Long Beach, Gulfport, Mississippi City and Beauvoir. The Mississippi coast is a magnificent beach, and a slight expense in boulevarding will make the most beautiful drive, about 25 miles, in America."

The Jefferson County Bank of Dandridge, Tenn., capital \$15,000, has been granted a charter. The incorporators are J. J. Redman, J. M. Gudger, T. N. James of North Carolina and J. T. Holt, Campbell Fox, R. T. Zirvele and W. A. Swann of Dandridge.

FOREIGN LETTERS

The MANUFACTURERS' RECORD is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. Some of these letters indicate the disposition of foreigners to buy American goods, and are therefore of interest to our readers.

For India's Cotton Industry.

Dinshaw D. Cama, Ahmedabad, East India:

"We are at present getting cotton gins from England which separate the fiber from the seeds, but this is not enough. Our people have to use hand labor in further handling the fiber which is left over by the gin, and we want to know if there is any machine made in your country which would do away with the hand labor. Any number of such machines can be sold in my district alone. I further beg to inform you that Ahmedabad has the largest number of cotton mills in India except Bombay, and if your manufacturers see their way to open connections with local dealers I am sure your manufacturers will be amply satisfied with the business they can get in the near future. I am connected with the cotton industry for 15 years, and am one of the largest suppliers to the gins and cotton factories over a large portion of India, and if you can place me in connection with the proper firms I shall do all I can to get them the best results possible. Messrs. Sechler & Co. of Cincinnati, Ohio, if referred to, will speak for me."

Technical Products and Supplies.

Borda & Vaccarino, via Robilant, 3, Turin, Italy:

"We have just started a rather important business in technical goods and general supplies for factories, and shall be pleased to get in correspondence with manufacturers of this line in your country. A great deal of this kind of goods comes from Germany, but we are convinced America could do as well if dealers could obtain the same facility of transactions as regards prices and conditions of payment. Our country is now going through a very promising period of increasing prosperity, and there will be chance for a good business. We shall be pleased to receive catalogues with lowest prices from your friends."

Grinding and Sharpening Machines.

J. S. Cock, ingenior, Christiania, Norway:

"I shall esteem it a favor if you will kindly give me names of manufacturers of saw-sharpening machines and electrical grinding machines, besides names of manufacturers of other kinds of grinding machines."

Matches Combined at One End.

Sajiro Tateish, No. 43 Minamimachi, Takanawa, Shibaku, Tokio, Japan:

"Please do me the favor to send me a catalogue of machinery for making block matches, i. e., matches combined at one end. You may urge your friends to do so and besides tell them to quote prices for export and discount."

Protective Covering for Steps.

H. Loo & Co., Brussels, Belgium:

"We shall be under obligations to you if you can succeed in placing us in communication with an American firm manufacturing carborundum similar to 'diamond tread,' a protector for steps of railway and other carriages and vehicles, etc."

American Products for Barbary.

Pilade Cassar, Tripoli, Barbary:

"I am extremely desirous of getting in communication with American firms, not only in regard to manufactured products,

but also in regard to such commodities as tea, coffee, hides, etc. For your Government I would say that I am in a position to make purchases on commission of goat skins (pickled, not pickled, or preserved with arsenic), lamb and sheep skin and hides from the Soudan. I could also take merchandise on consignment, as I have large depots sufficient to contain everything that might be shipped to me."

Japan Wants Fertilizer Materials.

Sajiro Tateish, 43 Minamimachi, Takanawa, Shibaku, Tokio:

"May I trouble you to send addresses for original dealers of fertilizing materials? Here is a party which wants to import same. They manufacture fertilizer for rice and other grains."

Manufactures for Mexico.

Mr. C. A. Correa, general director of Normal Instruction, Mexico City, Mexico, writes the MANUFACTURERS' RECORD that an organization of a National and Foreign School Museum of Products and Manufactures has been formed for the purpose of exhibiting information as to the products of manufacturers of the various countries. He invites the manufacturers of the United States to send him catalogues, patterns and such other information as they may have concerning their products, and as the museum is visited by a good many people, he believes that it will prove a valuable benefit in the shape of future business to foreign firms to place exhibits of this character in the museum.

Flour of Tapioca.

Consul R. H. Mottu of The Netherlands, No. 1103 Calvert Building, Baltimore, Md., writes to the MANUFACTURERS' RECORD as follows:

"I have an inquiry regarding flour of tapioca, and not knowing anything about this article, I take the liberty to address myself to you. My correspondent wishes to know to what uses this article is put in this section of the country and what industries use it. He is interested in the article, but has never sent any to this side. Perhaps you can put me in communication with someone familiar with flour of tapioca."

Pottery for Augusta.

Mr. W. J. Moore, secretary the Chamber of Commerce, Augusta, Ga., writes to the MANUFACTURERS' RECORD as follows:

"The miniature pottery now in operation at Augusta was operated in connection with the Georgia-Carolina Fair. It is the intention to continue the working of the plant for the present in a small way until it is demonstrated to the entire satisfaction of investors that porcelain and chinaware can be successfully and profitably manufactured in Augusta. As you probably know, within a radius of 15 miles of Augusta there are enormous deposits of both china and paper clays, as well as flint and feldspar, which are the materials used in the manufacture of china and porcelain ware. We expect to organize a small company within a very short time, using our present miniature plant as the basis and to work up from that until we have a large up-to-date pottery in operation in this city."

It is announced that the Illinois Central Railroad Co. has arranged with a European steamship line to inaugurate an immigration service through New Orleans as soon as the immigrant station shall be erected there.

The Board of Trade of Grottoes, Va., has been organized with Messrs. D. E. Horn, president; J. M. Rickey, vice-president; P. J. Fletcher, secretary and treasurer.

MINING

To Operate in Georgia.

The MANUFACTURERS' RECORD last week referred to the organization of the High Carbon Coal Co., main office Atlanta, Ga., for the purpose of developing coal lands in Dade county, Georgia, near Whiteside, Tenn. With reference to this enterprise it can be authoritatively stated that the company has about 700 acres of coal land located on the Nashville, Chattanooga & St. Louis Railroad, and will acquire additional property to make an acreage of approximately 2000 acres. A mining plant originally costing \$25,000 has been leased, and improvements will be made to this at an expenditure of about \$5000. The coal on the land is said to average 74 per cent. of fixed carbon, with 4 per cent. of ash, and is being used extensively for blacksmith purposes. The company will not manufacture coke, therefore will construct no coke ovens. Officers of the company are Judge James K. Hines of Atlanta, president; E. M. Jones, Room 12, News Building, Chattanooga, Tenn., vice-president and general manager, and R. E. Watson of Atlanta, secretary.

Iron-Ore Property Sold.

Reports state that R. L. Clark, attorney, of Union, W. Va., has closed negotiations for the sale of a tract of 3000 acres of timber and iron-ore property in Monroe county, West Virginia. The property is located along the Little mountain, principally between Crimson Springs and Union, and is known as the Dabney survey. For the past two years it is said to have been owned by Messrs. George R. Dabney of Middlesboro, Ky., and F. K. Winkle and William Mundine of Minnesota. It has been purchased by Mr. Malcolm W. Cross of Allentown, Pa., who, it is understood, is representing Pennsylvania capitalists. The purchase price is stated at \$38,000. The property has never been developed to any extent, it is said, by reason of a lack of railroad facilities, but the purchasers are reported as contemplating the construction of a railroad, which will facilitate operations on the tract.

Burk Hollow Coal Co.

With reference to the Burk Hollow Coal Co. of Jellico, Tenn., which has recently reorganized and incorporated under the laws of Kentucky, the MANUFACTURERS' RECORD is advised that its present capital stock is \$10,000, but that this will probably be increased, as it is contemplated to install an electric mining plant. The company has acquired a lease on the Mahan property, which adjoins the Burk Hollow property, and expects to develop the output of its mine to 8 or 10 cars per day, expending about \$10,000 for the installation of electric plant. Officers of the company are Messrs. S. B. Snyder, president; T. T. Pace, vice-president and treasurer; Frank Snyder, secretary, and G. W. Smith, general manager.

Coking Operations Increasing.

Referring to the extent of coking operations in Wise county, Virginia, Mr. R. Tate Irvine, a prominent coal and coke operator in that county, is reported as saying that both the coal-mining and coke-manufacturing industries are increasing at a rapid rate. He states that there are at present 4000 coke ovens in operation in the county, and new ones being constructed. Among the latter are 400 at Keokee, 500 at Little Tom's creek and 300 at Dorchester.

New Mines at Bayard.

Messrs. Howard Fulk, Clarence Fulk, C. C. Shaffer, James O'Brien, Lou Blocher, Irven Boring, Dr. G. T. Plum-

mer and Peton Dixon, all of Bayard, W. Va., and John Jose of Piedmont have organized a company for the purpose of developing a tract of coal land which it has leased from the Rees Company. It is stated that a new mine will be opened a short distance to the south of Bayard, work to be under the supervision of John Jose. In the vicinity of where it is proposed to locate the mine it is said that coal of the upper and lower Freeport and the Kittanning veins has been found in workable quantities.

Coal Shipments.

Coal shipments from mines in the Kanawha field located on the Chesapeake & Ohio Railway amounted to 372,435 tons during November, as compared with 304,150 tons in November, 1905, an increase of 68,285 tons. The total loading of coke in the same field aggregated 21,445 tons, as against 11,760 tons in November, 1905, an increase of 9685 tons. For the month of September, 1906, the coal tonnage in the Tennessee district on the lines of the Southern Railway amounted to 115,435 tons, and in the Alabama district, on lines of the same system, to 151,746 tons, a total of 267,181 tons.

Messrs. M. B. Davidson and C. Remington of Bates, Ark.; J. G. Wamack, M. R. Lively and P. E. Ford of Webb City, Mo., have incorporated the National Coal & Coke Co., with a capital stock of \$300,000, for the purpose of developing coal mines near Bates.

PHOSPHATES

Developments in Tennessee.

Capitalists of Columbia, Tenn., including Messrs. J. M. Elliott, Eugene Anderson, J. J. Lockhart, J. A. Skelley and H. F. Alexander, have incorporated the Little Bigby Phosphate Co., with a capital stock of \$40,000, for the purpose of developing a tract of phosphate land near Southport.

The Bethesda Phosphate Co. has also been incorporated at Columbia, Tenn., with a capital stock of \$10,000 to develop phosphate deposits near Bethesda, in Williamson county, Tennessee. Incorporators of this company are Messrs. H. F. Alexander, W. I. Collier, Ewing Kannon, J. A. Matthews and W. J. Moore.

To Develop Phosphate.

Articles of incorporation have been prepared for the Alfred Phosphate Co., capitalized at \$75,000, to develop phosphate deposits in Hickman county, Tennessee, near Swan creek, about 15 miles from Centerville. Among the incorporators of the company are Messrs. Charles M. Gilbert, W. C. McAllister, W. D. Gale, G. P. Wade and C. T. Boyd. It is understood that the company proposes to confine its operations at first to mining phosphate, but will later install a plant for manufacturing purposes.

Improvements at Lagrange.

A dispatch from Lagrange, Ga., announcing the completion of the Atlanta, Birmingham & Atlantic Railway as far as that city, says:

"This road means much to Lagrange, and her people fully realize its value to the upbuilding of the city. Already, in anticipation of its coming, there has been more than \$1,000,000 of improvements undertaken. A new fertilizer factory with a capital stock of \$200,000 is just completing and beginning work. A new cotton mill with a capital stock of \$250,000 will soon be ready for work. There are a number of smaller enterprises under way. More than 100 dwellings are now going up. The main streets of the city are being paved with vitrified brick, which adds greatly to the appearance of the city."

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

WOODWORKING AT HELENA.

Business League Striving for New Industries.

[Special Cor. Manufacturers' Record.]
Helena, Ark., December 14.

Recognized as being the ideal spot for woodworking industries of every description, and having already several mills and box factories here, hardwood manufacturers are beginning to look over the field here, three plants having located within the past three months. Today through the agency of the industrial branch of the Business Men's League of this city a deal was closed and papers signed securing the first Southern plant of the Ford-Johnson Chair Co. of Frankfort, Ky., and Michigan City, said to be the second largest plant of the kind in existence. The site for the new plant is a 10-acre tract located on the line of the Arkansas Midland Railroad in the southern outskirts of this city. The papers closing the deal were signed today jointly, and the contract will be let within 10 days for the mill buildings. The Ford-Johnson Company will erect two main mill buildings 60x250 feet, two stories in height, together with necessary dryhouses and warerooms. The company will invest \$20,000 at the outset and begin operations with 300 hands. In the course of two or three years it hopes to increase its force to 700 hands.

Ground was broken here two weeks ago and the work of erecting the main building has begun on the plant of the Arkansas Oak Co., headed by the Hartung brothers of this city. This plant will manufacture the parts of wagons, all save the spokes, occupying six acres and employing 50 to 75 hands.

The contract has been let, it is understood, for the work on the main buildings of the Helena Woodenware Co., a plant for the manufacture of buckets, tubs and similar articles. This plant will cover 10 acres and employ from 100 to 150 hands.

All of these concerns have been located here through the efforts of Industrial Commissioner J. W. Burks, Jr., of the League, who expects soon to land a spoke factory which has been attracted by the excellent supply of hardwood close to Helena and the admirable transportation facilities.

Outside of Memphis, Helena is rapidly coming to the front as one of the chief woodworking and lumber centers in the lower Mississippi valley. There are already five large lumber concerns located here and doing more business than they can handle. In their yards there is an aggregate of over 30,000,000 feet of the finest lumber that ever fell before axe or saw, the priceless product of the virgin forests of Eastern Arkansas. Here there is over \$3,000,000 represented in lumber interests alone.

The securing of the Ford-Johnson Chair Co. was accomplished largely through the efforts of the Business Men's League of this city, an organization composed of 450 members, representing all of the business and professional interests of Helena. This company contemplates putting in a plant here that will have a capacity of five carloads of finished product daily and intends to spend between \$20,000 and \$25,000 in its instalment. In seeking a location close to the supply of raw material, and one with the best shipping and transportation facilities, the natural advantages of Helena won out.

Lying south of Helena, along the line of the new Memphis, Helena & Louisiana Railroad, opened last spring, lies a large tract of virgin timber that heretofore has been valueless owing to the fact that it

has been inaccessible. The opening of this road has made it possible to get this valuable supply of hardwood to the mills in Helena. This tract of forest is over 100 miles in length and over 30 in breadth. In addition to this, Helena has tributary to her needs the vast supplies of hardwood from the forests of the White, Arkansas and St. Francis rivers, towboats rafting this timber into this port at rates far below that of the railroads. In these virgin forests are almost inexhaustible supplies of cottonwood, oak of three or four varieties, famous the world over, second-growth hickory, ash, sycamore, beech, maple, hackberry cypress, gum of several species, both much in demand in the South, as well as some poplar and walnut. What section can boast of such timber wealth? For a long time this vast timber wealth has been unavailable, but by the opening up of new roads and through the work of the industrial branch of the Business Men's League those contemplating establishing woodworking plants have investigated this section.

In regard to transportation facilities, Helena has the Yazoo & Mississippi Valley road, the Iron Mountain system, two lines, the Memphis, Helena & Louisiana road, and will soon have the terminal of the Missouri & North Arkansas. This road will connect with one of the largest trunk lines of the West, and eventually be connected with the Southern Railway by an extension across the river to Webb and Clarksdale, Miss., via Sumner and Dublin, Miss., running through a rich and virgin territory. The river transportation facilities will always act as a check on the railroad rates, and as Helena is at the head of deep-water navigation, there is never a season of the year that shipping and navigation is closed.

In addition to the lumber interests of Helena there is cotton, which is no small item. Over 100,000 bales are handled here annually outside of the cotton transactions of brokerage firms. The cottonseed-oil industry is represented by three large mills that send annually immense quantities of cake and oil to the export markets. All things considered, Helena is one of the ideal spots in the great valley for a woodworking plant, offering unequalled inducements.

With a population of 12,000 and the finest artesian water supply in the State, a magnificent sewer system and paved streets—the death-rate is low, 3 per 1000—Helena is a coming city of the Mississippi valley.

CHARLES B. DAVIDSON.

Memphis Market.

[Special Cor. Manufacturers' Record.]
Memphis, Tenn., December 15.

The hardwood market here has been troubled with more bad weather the last week. The rainfall continues, and work at country mills is much retarded. Many of the conservative factors in the trade look for slight advances on some hardwood items after the first of the year. The furniture trade, the cigar-box trade, hickory stock and slack cooperage and tight cooperage stock interests have all shown stronger prices recently. The veneer manufacturers in this district are clamoring for stiffer prices, and call attention to the conditions in the furniture trade. Most of the sawmills in Memphis have logs enough for steady running for some days to come, but receipts are not heavy, and stocks of lumber are unusually light for this period. The building projects do not show up very heavily in the Memphis district this month, but retail lumber conditions are active, growing out of old jobs and large ones being brought to the state of completion. The car situation has proven very annoying at interior points. As the year draws to a close it is remarked that Memphis will surpass last year in her building

records, and last year was a record-breaker. The export lumber situation is healthy. The exporters of the country will have their annual meeting at Norfolk, Va., on January 23, and Secretary E. M. Terry, who has his headquarters here, left today for New York and will not return until after the Norfolk session. With respect to the different woods sold, quarter-sawn red oak is the only item on the hardwood list that is at all sluggish. Plain oak, ash, gum and cottonwood in all grades are in very active demand. Low-grade gum and cottonwood for boxmaking purposes are in especially good demand. Some advances have lately been made in quartered white oak, and the demand for that wood has strengthened perceptibly the last few weeks.

October Cut of Yellow Pine.

Reports from 305 lumber mills in Missouri, Arkansas, Texas, Mississippi, Louisiana, Florida, Georgia and Alabama, as received by the Yellow Pine Clearing House, show that an aggregate of 307,701,559 feet were cut and an aggregate of 254,225,465 feet shipped during October. This leaves an increase in stock for the month of 53,476,094 feet, which is said to be the largest gain ever recorded. Prorated among the mills reporting, each is credited with a total cut of 1,008,857 feet and shipments of 833,526 feet making an increase in stock at each plant of 175,331 feet. Since March, 1906, the increase in stock from month to month, it is stated, aggregates approximately 200,000,000 feet, but as a decrease aggregating 40,000,000 feet was reported for January, February and March, there has been a net gain for the current year of about 160,000,000 feet.

To Promote Forest Reserve Bill.

At a special meeting of the Engineering Society of the Carolinas, held at Charlotte, N. C., last week for the purpose of discussing with Mr. James H. Cutler of the American Forest Association plans to promote the passage through the House of Representatives of a bill appropriating \$3,000,000 for the establishment of the two proposed forest reserves in the East, a committee was appointed to consider the matter and decide what action to take. The committee as appointed is composed of Messrs. W. S. Lee, Jr., chairman; D. A. Tompkins, C. W. Sims and E. W. Thompson. It has requested the following gentlemen to assist it with its work: Messrs. R. M. Miller, Jr., S. Wittkowsky, C. B. Bryant, A. J. Draper, C. W. Johnston, H. M. McAden and S. S. McNinch. Members of the committee will hold a conference in a few days.

Arkansas Manufacturers Meet.

Representatives of a number of the largest manufacturers of short-leaf yellow pine in Arkansas held an informal conference at Little Rock last week. After the meeting it was announced that the manufacturers decided to abolish the office of lumber statistician, which has been maintained in Little Rock for the purpose of furnishing the short-leaf yellow-pine manufacturers of the State with statistics relative to the lumber trade in Arkansas. Aside from this, it is understood that no other action was taken at the meeting.

Reorganizes Company.

A dispatch from Johnson City, Tenn., states that Mr. Samuel R. Sells has perfected a reorganization of the Johnson City Coal & Lumber Co. with a capital stock of \$35,000 and has purchased two acres of ground at Carnegie, Tenn., for the erection of a modern sawmill. The mill structure will be 68x168 feet, to be equipped for a capacity of 100,000 feet of lumber per day. It is stated that Mr. Charles T. Hayworth of Sault Ste. Marie,

Mich., will be associated with Mr. Sells in the enterprise.

Deal for Cypress Land.

Messrs. R. C. Huston and H. L. Fowler of Hattiesburg, Miss., and A. B. Linn of New Orleans, La., are reported to have closed a deal with Judge W. H. Seymour and associates of Algiers, La., for the purchase of 850 acres of cypress lands in Orleans and Jefferson parishes, Louisiana. The purchasers are organizing a company with a capital stock of \$25,000, which may later be increased, for the purpose of developing the timber on the property, and will probably construct a drainage canal to make the land suitable for building lots after being cleared.

High Standard for Export Timber.

In order to keep up the high standard of export timber shipped from the port of Pensacola, Fla., exporters of sawn timber from that port have signed an agreement not to purchase any timber for export which does not come up to specified requirements. Letters have been sent to manufacturers, it is stated, saying that timber which does not reach the standard will not be accepted, and inspectors have been notified to classify all timber according to certain rules.

Firm Changes Its Name.

The MANUFACTURERS' RECORD is advised that the partnership heretofore existing between Messrs. John Stephens, W. P. Baldwin and A. H. Stephens, doing business under the firm name and style of Stephens-Baldwin Company at Jacksonville, Fla., has been dissolved by mutual consent, and that the Messrs. Stephens will carry on the business under the firm name and style of the Stephens Lumber Co.

Large Shipments from Mobile.

The steamer Banan of the United Fruit Co. cleared from Mobile, Ala., last week for Banes, Cuba, with a cargo of 600,000 feet of lumber and building material to be used in the erection of houses, stores, wharves and bridges for the Nipe Bay Company. Another cargo of about 600,000 feet will be shipped by the steamer John Wilson within a few days.

Wants Tupelo Gum Timber.

The MANUFACTURERS' RECORD is advised that several hundred feet of tupelo gum timber are wanted for experimental purposes by the Percival Concrete Tie Co., H. E. Percival, Houston, Texas. If the experiments prove successful orders will be placed for the timber in large quantities.

Wants Ash Timber Lands.

A Southern company writes the MANUFACTURERS' RECORD that it wants to purchase ash timber lands, any size tracts, which will cut an average of 1000 feet or more per acre. Full description is invited. Address the Interstate Realty Co., 1404 Memphis Trust Building, Memphis, Tenn.

To Cut 300,000 Ties.

Contracts are asked to submit proposals on 300,000 oak ties, to be made on company right of way between Red river and Pauls Valley, I. T. Information can be obtained by addressing T. J. Galvin, 418 Swiss avenue, Dallas, Texas.

Lumber Wanted in Washington.

The Columbia Brick Co., 525 13th street N. W., Washington, D. C., informs the MANUFACTURERS' RECORD it wants prices on 50,000 feet of lumber.

For the first half of December lumber shipments from Jacksonville, Fla., aggregate 5,784,969 feet, which is said to be the smallest amount of lumber shipped during the same period for many months.

MECHANICAL

Modern Marble-Quarrying Machinery

In the MANUFACTURERS' RECORD of November 8 appeared a letter from one of our traveling representatives relative to the extensive quarrying operations at Tate, Ga. As is well known to architects, builders and quarrymen, Georgia marble is used in large quantities throughout the United States and Canada and in foreign countries. The Tate deposits are apparently of unlimited extent, but they have not been worked more than 175 feet below the ground, owing to their large surface area. The Georgia Marble Co., now working four quarries, and soon to open a fifth, has been operating at Tate for three generations. It removed during the summer of 1906 from its Kennesaw quarry 100,000 cubic feet of pure white marble, and an average year's production amounts to nearly 500,-

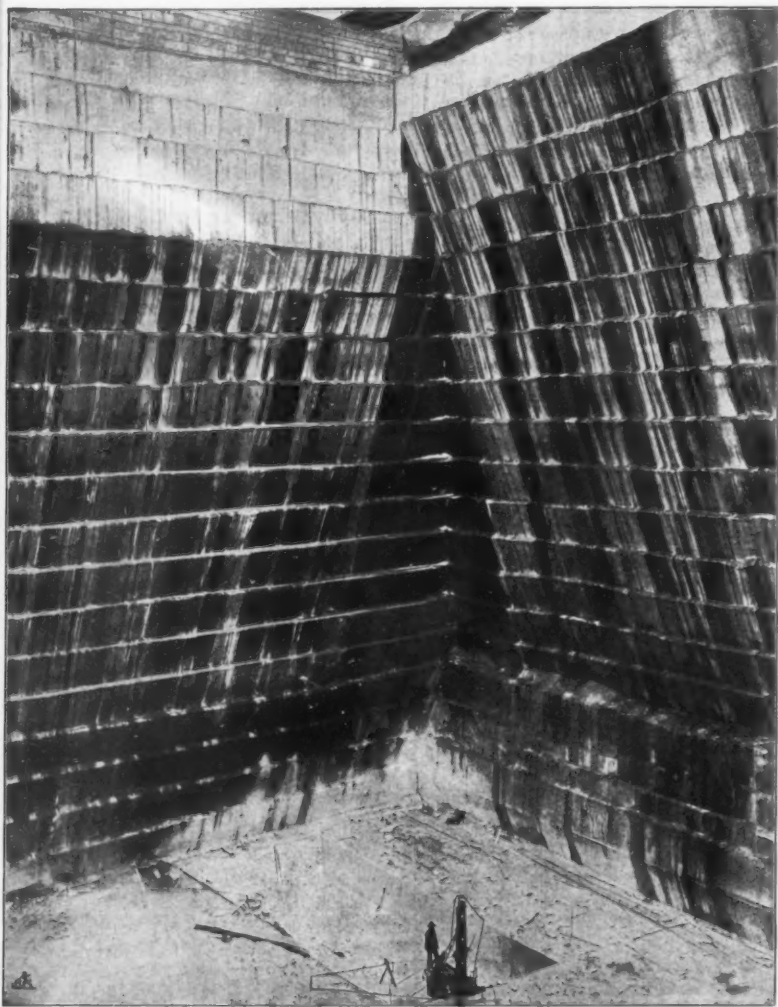
well pattern. Eighteen months ago the company mounted a second standard and cutting engine, with separate steam connections, on one of the regular Sullivan 6½ machines. This "double-head" machine cut twice as many feet per day as the other type on straight work. As a result two complete new machines of the "double-head" type were purchased, and all the remaining single-head machines were changed to the "double-head" type. About 14 Sullivan "double-head" channelers are now used. An accompanying illustration shows seven of these channelers in operation. Another illustration shows the effect of angle cutting. The new channeler will cut about twice as much stone in a shift, either on straight or angle work, as the single machine. This is because the same amount of cutting done by one set of steels in the old type before they are changed for sharpening is done by two sets of steel in the new machine; thus the cut-

its length, thus preventing side strains. The crosshead is held in its proper position on the guide by phosphor-bronze gibs. A feature of the valve motion is a valve located in the exhaust passage, which by choking the exhaust steam establishes a steam cushion, preventing the piston from striking the lower cylinder head when the bits pass over a mud seam or cavity in the stone. One of the new machines embodying these improvements recently cut 21 feet 8 inches in 20 minutes, or at the rate

The Southern Marble Co. at Marble Hill, seven miles from Tate, is another of the large operators in this field. It has two quarries, about a dozen Sullivan channelers being employed. The bulk of output consists of exterior building blocks and slabs and monumental blocks sawed to size.

Reinforced Concrete Warehouses.

With the marvelous development of the resources of the Southern States a wide-



ANGLE-CUTTING IN GEORGIA QUARRIES.

000 cubic feet, or three floors of 150,000 feet each.

The marble is cut by stone-channeling machines, gadders and rock drills. The channelers are of Sullivan single-gang direct-acting type, steam driven, size 6½ inches, with swivel head, built by the Sullivan Machinery Co. of Chicago. This type has been used for many years in the quarries of Georgia, Vermont, New York, Tennessee and other States. It not only has high cutting capacity, but makes wall and corner cuts at any desired angle.

Valuable deposits of stone may thus be followed under heavy beds of worthless surface rock from the main opening without the expense of stripping.

The Georgia Marble Co. introduced an important improvement in these machines. It has employed 10 or 12 Sullivan machines during 15 years for angle and corner cutting, performing the level work with double-gang channelers of the Ward-

ting edges are dulled less rapidly. To put it differently, more work can be done with the double machine before changing cutter bits.

With the new type 220 square feet have been channeled in 7½ hours, cutting to a depth of six feet, whereas 80 to 90 feet is a good day's work for the single-head channeler. The double-head machine is also economical of labor, requiring one runner and one helper, the same number used with the old type, thus saving the labor of two men.

It was supposed at first that high places would be left at the end of the channel cut, but experience has disproved this. It is unnecessary to run over the ends more frequently than when using the single-head type.

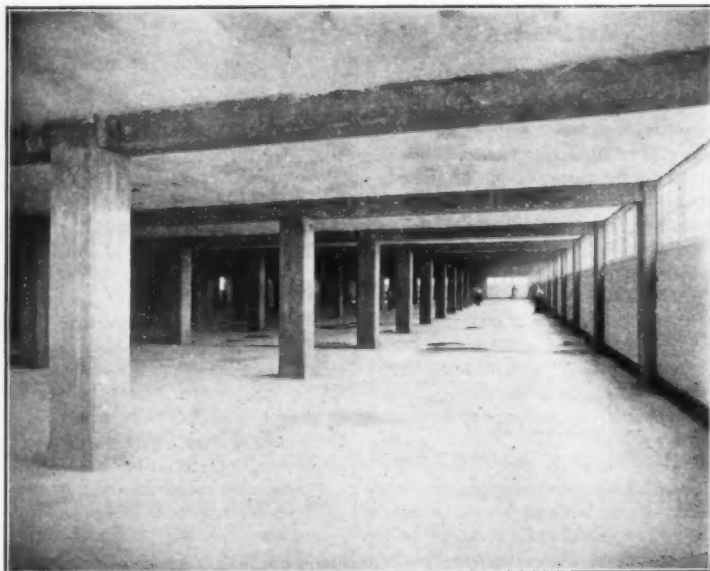
Recent improvements to the class 6½ machine include the mounting of the cutting engine on a sliding steel apron or guide gibbed to the standard throughout

of 650 square feet per day of 10 hours, thus making a cutting record.

The Georgia Marble Co. also employs a number of Sullivan steel gadders and class UC (2¾ inch) rock drills. Its blocks of stone are brought to the surface by eight large steel steam derricks built in the company's own shops. The stone is huddled on the surface by a traveling crane of 60-foot track gauge. The track is composed of 100-pound steel rails laid on marble blocks. Seven miles of railroad, bal-

awake spirit of enterprise has appeared among Southern manufacturers, manifest in the employment of the most modern methods of manufacturing and factory equipment.

In the front rank of these modern methods stands reinforced concrete, which has already claimed its full share of attention from Southern builders. Many large contracts have been placed, and buildings of this construction are rapidly appearing throughout the South.



REINFORCED-CONCRETE WAREHOUSE INTERIOR.

lasted throughout with marble, connect the different quarries with each other and with the Louisville & Nashville Railroad at Tate.

The Georgia Marble Co. does no finishing work, but supplies its product sawed to any desired size. Its mill includes 34 gangs of saws and two 12-foot rubbing beds, operating night and day. The Blue Ridge Marble Co., Geo. B. Sickles Marble Co., Kennesaw Marble Co. and Georgia Finishing Works handle a large part of the output of quarries in the district.

With the remarkable increase in the output of manufacturing concerns has come the question of proper storage facilities—a matter of vital importance to factory owners. In many of these industries the entire year's output is disposed of in a few months' time, and for this reason it is necessary to have large warehouses in which the finished product can be safely stored until it is time for it to be placed upon the market.

It is of vital importance that such a building should be absolutely fireproof, for

should the building be constructed of perishable material a fire once started is liable to destroy goods which represent the labor of many months.

The lack of sufficient ground often forces the owner to erect high buildings

made the question of foundations one of vital importance.

It was found, however, that by using continuous footings reinforced with Kahn trussed bars an economical and perfectly reliable foundation could be obtained.

such a framework can be erected is, of course, another important feature.

The exterior columns and beams were left exposed and were finished by applying a thin coating of cement grout, which gives a neat appearance for a small ex-

windows are metal frame with wired glass, so that there is absolutely no chance of any part of this structure being affected by fire.

It is very interesting to note that this building costs approximately the same as a non-fireproof building of mill construction.

The building above described is typical of over 100 large warehouses in different parts of the country in which the Kahn system has been used throughout.

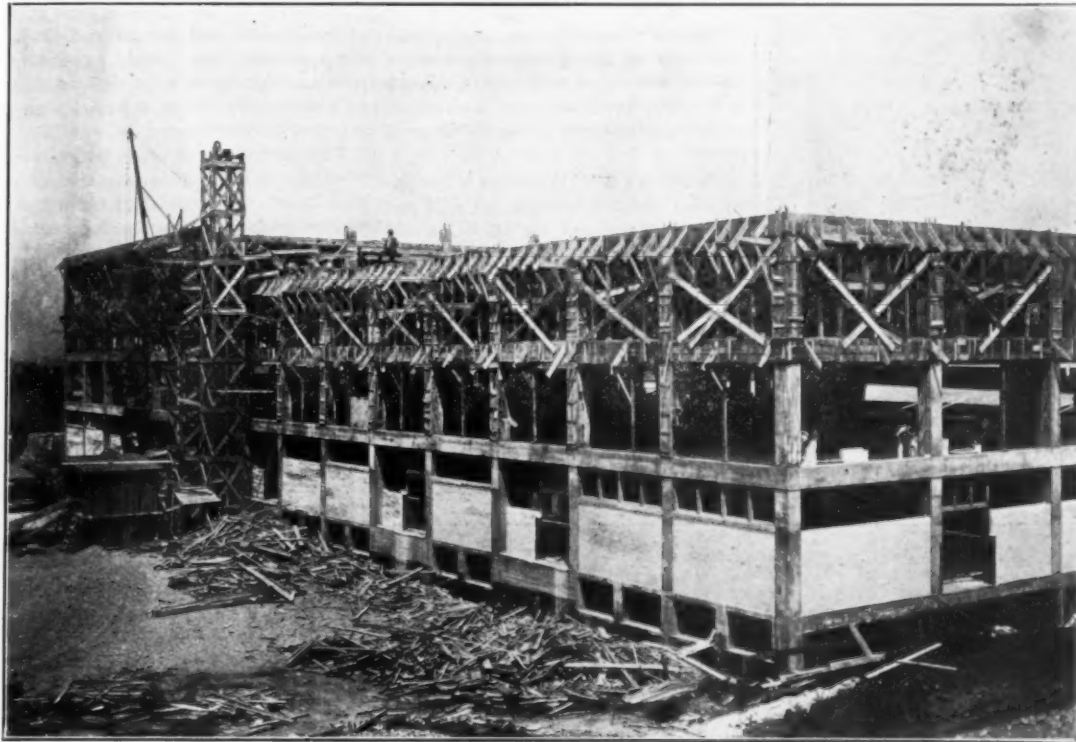
Further information regarding this class of construction can be obtained from Layton F. Smith, 403 Wilson Building, Baltimore, Md., who represents the Trussed Concrete Steel Co. of Detroit, Mich., and has been instrumental in developing much of this company's business through the South.

Wood for Street Paving.

The United States Forest Service has undertaken a series of experiments with wood blocks for street paving which promise to result in information of considerable value.

Paving with wood has been experimented with for nearly 75 years. The first experience was so unsatisfactory that municipal engineers for a long time looked upon wood pavement with disfavor. It was quiet, cheap and comfortable, but soon wore into holes and ruts, and the absorption of street filth rendered it unsanitary, while the wood speedily decayed and had to be replaced. In recent years both knowledge and practice have improved. It has been discovered that with the right selection and treatment of woods and the right method of laying wood paving can be made successful; that a good pavement must be built on a sound foundation, and that both absorption and decay can be prevented in the wood by proper chemical treatment. Consequently, a revival in wood paving has begun, and many of the largest cities are again trying it.

This is particularly true of New York.



ERECTING REINFORCED-CONCRETE WAREHOUSES.

where formerly one or two stories would be sufficient for this purpose.

Until within the past few years warehouse designs have been open to serious defects. While a steel-framed building with hollow tile floors answered the purpose, it was an exceedingly expensive form of construction and took a great deal of time to erect. This was due principally to the fact that the structural steel could only be obtained after serious delay.

For these reasons the majority of warehouses were erected according to what is known as wooden-mill construction. A building erected by this method is in constant danger of destruction by fire, which necessitates a very high rate of insurance. This, together with the fact that the buildings are in constant need of repair, adds greatly to the cost of maintenance.

These conditions were changed with the invention of the Kahn trussed bar. In buildings erected by the Kahn system the enduring, granite-like qualities of concrete are combined in a scientific manner with the strength and elasticity of steel, the result being rigid monolithic structures.

The advantages of this method of construction have been recognized by the leading architects and contractors in all sections of the country.

A typical example of this work is found in the new warehouse for the Oliver Chilled Plow Co. at South Bend, Ind. (See accompanying illustrations.) This building is 250 feet long, 100 feet wide, and consists of five floors and basement, giving a total floor space of 125,000 square feet.

As it was deemed necessary to use every available foot of floor space for storage purposes, these floors were designed accordingly. The first floor carries a superimposed load of 600 pounds per square foot uniformly distributed; the second floor 400 pounds and the upper floors 250 pounds.

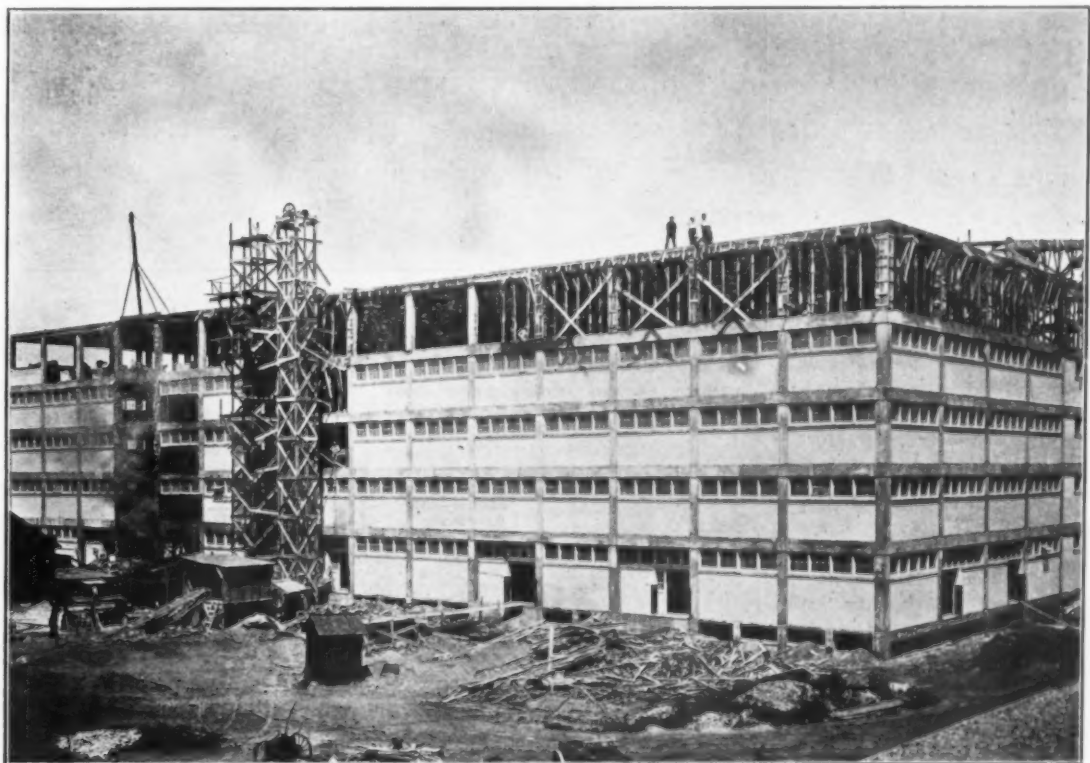
When the preliminary surveys were made on the building site it was found that the soil was of very poor quality, which, in connection with the fact that it must sustain very heavy loadings,

With such a foundation there was absolutely no chance for any unequal settlement or any other weakness developing in the foundation of the building.

Another interesting feature is the framework, which was built on the same principle as a structural steel frame building, with the exception that in place of steel

penditure of money. The exterior spandrel walls are built of white sand-lime brick, which gives a pleasing architectural effect.

The column spacing is 19 feet 8 inches by 16 feet 6 inches, thus giving sufficiently clear floor space without intervening columns.



ERECTING REINFORCED-CONCRETE WAREHOUSES.

reinforced concrete was used for all the structural members. In this way a framework was obtained which in itself is fireproof and does not have to be covered with any fireproofing material, as in the case of a steel building.

The remarkable rapidity with which

The floor slab was of regular Kahn reinforced hollow tile construction, which system has proven so successful in many other buildings.

All the elevators are enclosed in the hollow tile partitions. The stairs and stair landings are of reinforced concrete, and the

The city has made use of wood to a large extent in the downtown district, where traffic is heavy and the noise great. The quietness of the wood pavement has made it popular in the Metropolis. The lower part of Broadway is paved with wooden blocks. The roar in this district used to

be a menace to public health, but last summer, with wood pavement in position, it was possible to keep open the windows

able. Close examination of the block reveals the fact that very little of the wood has been worn away. The ends of the

even if this rate of wear were continued the pavement would have an extremely long life. The important fact, however, is that this wear does not increase, but practically stops after the first three years, as the surface of the pavement is then so hard that the further effect of traffic is almost nil.

"Careful tests and measurements year after year on this Boston street, which was the first street in the United States to be paved in this manner, have shown no decrease whatever in the thickness of the blocks.

"In laying wooden pavements it is essential that the foundation be of solid and smooth concrete and the blocks be laid tightly together, shoulder to shoulder, so that they cannot split down the grain. The concrete foundation, like the blocks themselves, improves with age, and, in fact, does not reach its full strength until after several years. Decay of the wood is prevented by impregnation with creosote preservatives.

"Few people realize the enormous cost and importance of street pavements. Measured by the money invested, street

000,000 for the United States. Wood pavement is now made almost exclusively of one or two of the best construction woods, and if it should become popular the drain upon these woods would be seriously increased."

The United States Forest Service wishes to ascertain if there are not among the various cheaper and more abundant species some which can, by proper treatment, be substituted for the more valuable kinds now in use. This study will involve three principal lines of inquiry.

The experience of cities which have wood pavements will be compared as to the kind of wood used, the form of block and the kind of construction, the qualities of the resulting pavement and the cost.

Laboratory tests will be made first to determine to what mechanical qualities woods which have given good service seem to owe their success, and then as to what woods among our cheaper varieties either possess or can be given these qualities. The wear to which a pavement is subjected is a very complex one, which it will be difficult even to approximate in laboratory tests. The final test will be actual service, but the laboratory can at least give the basis for an intelligent solution in place of an unfounded guess.

Finally, the supply and location of promising substitutes will be considered.

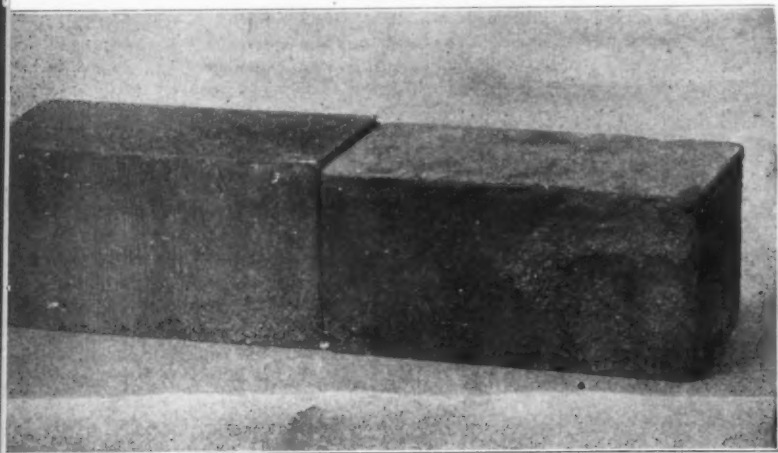
The United States Wood Preserving Co. of New York is prominent in promoting the adoption of wood for street paving, and manufactures blocks that are used extensively by street-paving engineers. It issues interesting literature on the subject.

A New Woodworking Machine.

Managers of planing and flooring mills who are interested in improved machines for their plants will note the accompanying illustration of a new woodworking machine. This is a combined surface planing and matching machine built by the H. B. Smith Machine Co. of Smithville, N. J. It differs from the company's other planers and matchers in the fact that it is designed on the plan of a surface planer with a matcher attachment in which the table raises and lowers for thickness of material being worked, which is conceded a convenience, as it simplifies adjustments.

The frame is composed of substantial sides, planed top and bottom and connected firmly together by three broad bottom and three top girts in such a manner as to form a rectangular box of much rigidity some 8½ feet long, and wide enough to support all the working parts.

The table which carries the under cutterhead, side spindles and lower feed rolls is quite heavy, provided with a wrought-iron extension (making its length about



WOOD FOR STREET PAVING.

of offices on the lower floors without annoyance.

Experienced men say that the possibility

fibers have been pounded down and matted or broomed slightly, and this surface is considerably harder than the rest of the



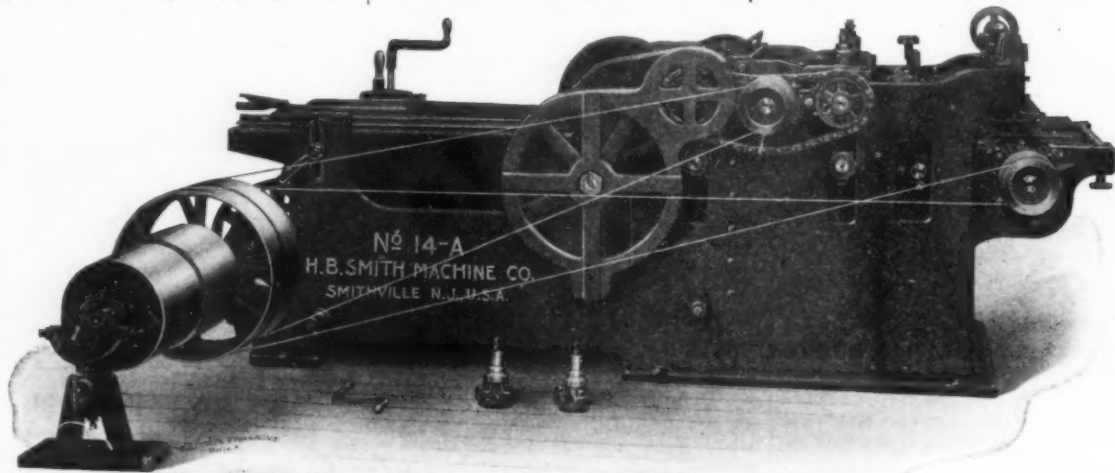
MURRAY STREET, NEW YORK—PAVED WITH WOOD.

of paving streets with wood, and obtaining thereby a really durable pavement which actually lasts longer than the hardest kind of stone, depends upon whether the wood is laid with the grain vertical or horizontal. Laid horizontally, as in plank floors of highway bridges, wood is not durable. It tears up under the action of traffic and splinters and splits under the blows of horses' hoofs. Wood pavement, however, is claimed to become practical the moment that the grain of the wood is so turned that it receives pressure on the end instead of the side of the grain. Laid in the form of wooden blocks, with the grain of the wood perpendicular to the foundation, this material, instead of tearing apart, is pounded down in such a way that it becomes constantly harder and tougher with use.

An illustration reproduced herewith is a photograph of two blocks used for city pavement. One block is new, and beside it is another which was originally of the same size. The latter has been used under traffic on Tremont street in Boston for four and one-half years. The difference in the height of the blocks is inconsider-

able. It is stated that "the actual decrease in the height of the block after four and one-half years averages about

paving is probably the most important of any single class of engineering construction except steam railroads, the amount



NEW MACHINE FOR PLANING AND FLOORING MILLS.

one-eighth of an inch. As the block is four inches thick, it can be readily seen that

invested to date being estimated by a competent authority as approximately \$515,-

10 feet), and is mounted on four substantial screws which are operated by a single

crank at the feeding-in end for raising and lowering to suit the thickness of material being planed, which is limited to 6 inches in thickness. The two large screws at the discharging end rest on ball bearings and the table is adjustably gibbed near the cutterheads, the clamping being done at the feed end.

The feed consists of four 6-inch feeding rolls, all driven and expansively geared, the gearing being covered by our patent gear casings. The upper roll is weighted with an intervening spring between the weight lever and roll. The driving gears are of wide face and cast with great accuracy. The first upper roll is fluted and driven by gears at both ends with a downward pressure, and in a manner to produce a parallel hoist; hence the gears run smoothly and without the usual binding strain. The journals to the feed rolls are 1 1/4 inches, and run in substantial bearings, and each roll possesses all necessary independent adjustments. The method of compounding and driving the gears insures a powerful feed. Two rates of feed are made to suit the customer, and additional rates of feed may be had at small additional cost. The feed may be started and stopped at both ends of the machine by levers which operate a substantial friction clutch.

The cutterheads and spindles are all of high-carbon steel, made with great accuracy, and journals ground perfectly round and to size. Both the upper and lower heads are 24 inches long, 4-slotted, with 5 1/2 cutting circle and 2-inch journals. The bearings are improved White's patent clamp style, which can be adjusted to the one thousandth part of an inch and clamped firmly to place. Those of the upper head are 9 inches long on each end and on the under head 9 inches long on one

the cut, and can be instantly let down so as to make ready access to the cutters for sharpening or removing. The plate in front of this head is also provided with horizontal adjustment. The pressure-bar over the under head has both parallel and independent adjustments.

Besides the upper and lower cutting cylinders, the company furnishes one pair of 4-slotted sideheads 4 1/4 inches long, one pair of Shimer patent expansion matcher heads and one pair of plain cutters to each of the 4-slotted heads (all heads having the same cutting circle, 5 1/2 inch). Bolts for the extra slots are included, likewise the necessary wrenches, which are provided with a convenient rack for holding them.

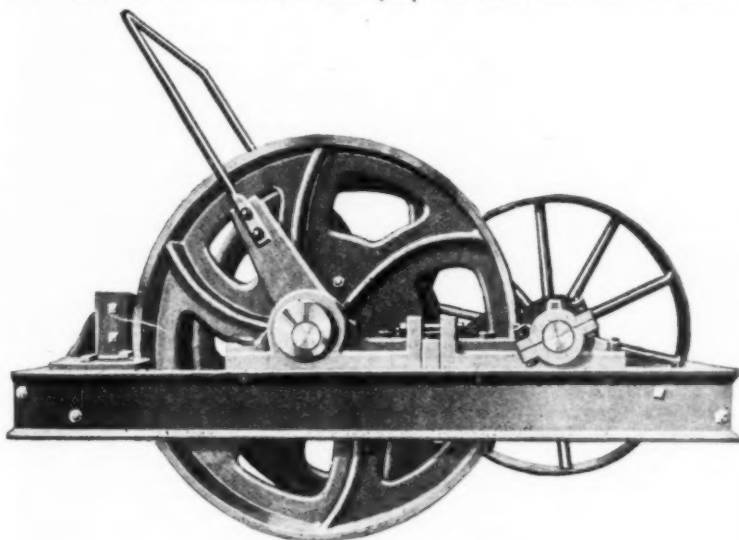
Belting Required.—Two top head belts each 16 feet long by 4 inches wide, one for bottom head 20 feet 8 inches long by 4 1/2 inches wide, two for side spindles each 18 feet long by 4 inches wide, and one feed belt 10 feet 5 inches long by 2 1/2 inches wide.

At a slight reduction in price for the under head and attachment the machine can be arranged as a three-side planer and matcher, and the machine is offered as a first-class single or double surface planer.

The H. B. Smith Machine Co. also builds six-roll fast-feed flooring machines to work 10x6 inches, 12x6 inches and 15x6 inches, embodying all modern improvements; also outside molding and flooring machines in pairs, rights and lefts, so that one set of labor can operate two machines, thus doubling the quantity of high-grade work with a given amount of labor.

Steele & Sons' No. 5 Hoist.

Operators of brick-manufacturing plants and other industrial establishments where



STEELE & SONS' No. 5 HOIST.

end and 12 inches long on the belt end. The under head has vertical adjustment for depth of cut. The side spindles are of 1 1/2-inch steel, and also run in patent clamp bearings having an adjustable step. These spindles are also 1 1/2 inches diameter where the heads go, and both of the vertical headstocks adjust and clamp firmly in position from the outside. The sideheads can be instantly removed and the spindles run to side frames when it is desired to plane wide stock, and when the sideheads are in place the machine will match from 1 1/2 to 14 inches wide, and as thick as the sideheads are long (4 inches).

The pressure-bars are easy of access, and have all necessary adjustments. The pressure-bar and chip-breaker to the upper head adjust for projecting cutters at least one inch beyond the normal cutting circle, and the bottom head will swing cutters one-half inch beyond the usual cut. The table beyond the under head adjusts to

a heavy hoist is required will find their attention attracted to the accompanying view of the Steele & Sons' No. 5 hoist. This hoist is built on the same principle as the smaller hoists which the firm named has been building for some years. The eccentric boxes on both sides are adjusted for forcing the friction wheels in contact evenly, giving even wear and great power. The reverse motion on the lever puts on the brakes. The entire machine is built of iron and steel, and weighs more than 2000 pounds. Its makers state that it will be found more than ordinarily satisfactory for hoisting purposes wherever a machine of this type is demanded by the conditions and requirements. J. C. Steele & Sons of Statesville, N. C., the well-known manufacturers of the "New South" brick machinery, build the No. 5 heavy hoist.

Subscribe to the MANUFACTURERS' RECORD. Price \$4 a year, or six months for \$2.

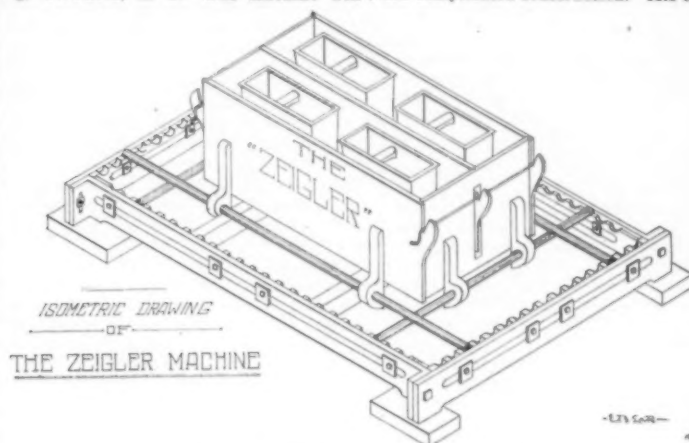
Zeigler Building-Block Machine.

Because of the present activity in the use of concrete blocks for building, the accompanying views of a block machine and its products will prove of interest. This is the Zeigler machine, invented by D. C. Zeigler, consulting architect, offices in the National Loan and Exchange Bank Building, Columbia, S. C. The machine will

The pallets are also adjustable, and can be made of cast iron or wood.

The machine will make blocks for the two-piece wall (all hollow).

Mr. Zeigler states that his machine will do one-third more work per day with the same force of labor than can be accomplished with machines of a more costly and complicated construction. His experi-



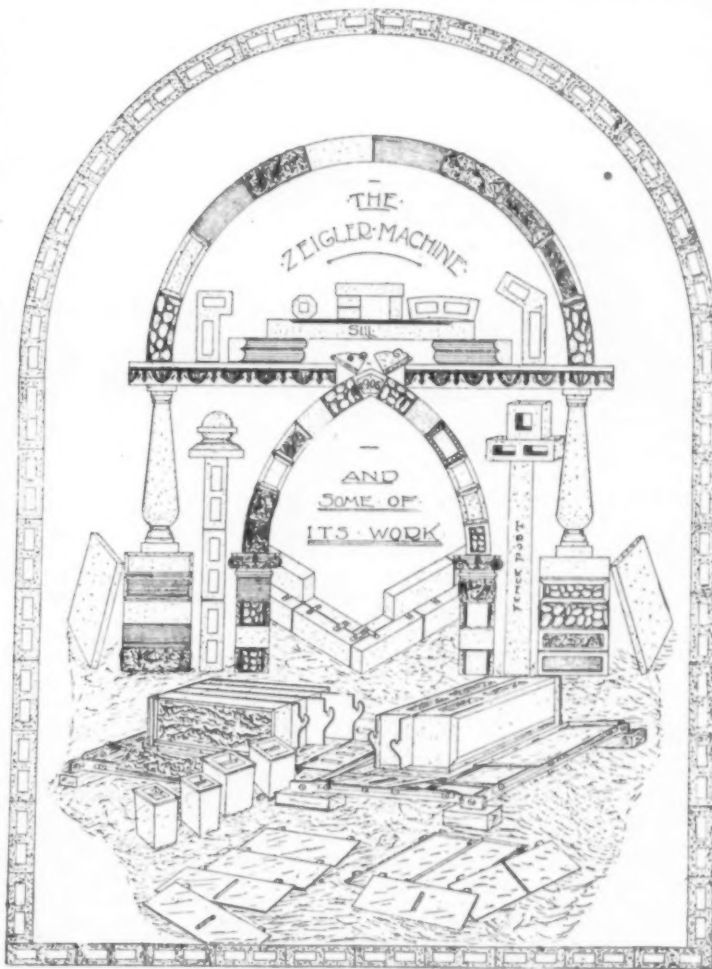
ZEIGLER BUILDING-BLOCK MACHINE.

make from one to eight blocks at one operation, the blocks to be of any size and shape and any design wanted. It can be adjusted by an ordinary laborer. It will produce brick, fence posts, street paving blocks, window sills, hearthstone columns, balustrades, lintels, brackets, coping, steps, gable ornaments, hitching posts, street curbing, grave vaults, monuments, and, in fact, almost anything made of sand and

ence began in 1886 in erecting the Hotel Cordova at St. Augustine, Fla.; the Hotel Ponce de Leon, and the Dibble residence at Aiken, S. C., in 1888. Many permanent buildings since then have added to his knowledge of this class of construction.

Building at Mobile.

Mr. E. Craighead, editor of the Register of Mobile, Ala., informs the MANUFAC-



THE ZEIGLER MACHINE AND PRODUCTS.

cement. The Zeigler machine makes blocks from the size of an ordinary brick up to a block 8x24 inches and 72 inches long. The adjustment to make different-sized blocks is made by lifting the side or end rods out of one socket and place into the other, and slipping off a short side or end and then slipping on the side or end piece that is wanted.

TURERS' RECORD that \$2,000,000 worth of construction is under way in that city at present, including two reinforced concrete structures and three buildings of steel frame and brick.

Merchants of Louisville have, it is stated, voluntarily increased their assessments this year on personal property by more than \$4,000,000.

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

ALABAMA.

Anniston, Ala.—Iron Furnaces, Coke Ovens, Coal and Iron Mines, etc.—J. M. Barr of Norfolk, Va., and J. B. Carrington of Birmingham, Ala., have closed a contract for the purchase of the Woodstock Iron Works and are organizing a company to take over and develop the plants and mineral resources to their fullest extent. The Woodstock properties include two blast furnaces, 374 coke ovens, coal and iron mines, limestone quarries, etc. It is stated that Mr. Barr will be president and Mr. Carrington vice-president of the new organization, and H. T. De Bardeleben of Birmingham will be manager of furnaces and mines. The purchase price is reported (but not authoritatively) as \$2,000,000.

Ashville, Ala.—Barytes Mines.—Nulsen, Klein & Krause Manufacturing Co., St. Louis, Mo., is developing barytes mines near Ashville.

Blanche, Ala.—Water-power Electrical Plant.—A corps of engineers in charge of J. A. Latham of Providence, R. I., chief engineer, will begin at once making surveys for electrical-power plant to be located on Little river by the Little River Power Co., referred to November 15 and previously. It is estimated that the development will represent an investment of \$1,500,000, and the power obtained will generate an electric current equal to 20,000 horse-power, which will be transmitted to mills, factories and towns within a radius of 35 miles. R. A. Mitchell of Alabama City, Ala., is president of the company; H. T. Henderson of Durango, Col., vice-president, and O. R. Goldman of Gadsden, Ala., secretary-treasurer.

Calhoun, Ala.—Tunnel.—Reported that the Louisville & Nashville Railway is arranging for the construction of a tunnel on its line between Calhoun and Greenville, Ala. W. H. Courtenay, Louisville, Ky., is chief engineer.

Decatur, Ala.—Sawmill.—Standard Lumber Co., reported incorporated December 6 with \$15,000 capital stock, will operate sawmill with a daily capacity of 20,000 feet. A build-

ing 40x90 feet will be erected. J. B. Boucher is president.*

Demopolis, Ala.—Cottonseed-oil Mill.—Reported that the Alabama Cotton Oil Co. (main office, Mobile, Ala.) is considering making improvements to local plant.

Demopolis, Ala.—Bridge Construction.—Demopolis Improvement Co. has been incorporated with \$25,000 authorized capital stock to build a steel toll highway bridge across the Black Warrior river at Demopolis. John C. Webb is president; John C. Webb, Jr., vice-president, and Benjamin F. Elmore, secretary-treasurer.

Gadsden, Ala.—Bridge Construction.—Etowah County Commissioners will arrange for the construction of steel approach to the bridge over the Coosa river.

Jacksonville, Ala.—Cotton Mill.—Idle Cotton Mills' stockholders will hold a meeting on January 14 to increase capital stock from \$200,000 to \$750,000 and plan the erection of an additional mill of 25,000 spindles and a new power plant. Both present plant and new mill will be driven by electricity.

Jonesboro, Ala.—Water-works.—Town is considering the installation of water-works. Address Mayor Martin.

Mobile, Ala.—Overall Factory.—B. Kahn, Leo Kahn and Sol Kahn will establish overall factory.

Montgomery, Ala.—Sewerage System.—Mitchell Bros. have contract at 61 cents per linear foot for constructing 1050 feet of sanitary sewer on Huston street.

Oxford, Ala.—Brick Plant.—R. W. Fisher contemplates establishing brick plant at Hobson City.*

Selma, Ala.—Hardware.—Carothers, Rogers & Fowlkes Hardware Co. and the Johnson, Coleman & Graham Hardware Co. have consolidated and incorporated as the Selma Hardware Co. with \$75,000 capital stock.

Tuscaloosa, Ala.—Water-works System.—No materials have been purchased or engineer engaged and plan of procedure has not yet been defined by the board for the construction of water-works system for which \$125,000 of bonds was reported last week as voted. F. G. Blair is Mayor.

Wylam, Ala.—Water-works.—Birmingham Water-Works Co. of Birmingham, Ala., has applied for franchise to lay water mains.

ARKANSAS.

Argenta, Ark.—Sewerage System.—The construction of a sewerage system to cost \$75,000 is being considered by the Board of Public Works.

Bates, Ark.—Coal Mining.—National Coal & Coke Co. has been incorporated with \$300,000 capital stock by C. Remington, M. B. Davidson of Bates; J. G. Wamack, M. R. Lively and P. E. Ford of Webb City, Mo. It proposes to open and operate a coal mine near Bates.

Bear, Ark.—Lumber Company.—J. B. Jewell Lumber Co. has been incorporated with \$5000 capital stock by J. B. Jewell, R. B. Hager, J. E. Duckett and others.

Blevins, Ark.—Sawmill.—It is reported that Kilgore & Co. have begun the construction of a hardwood mill.

Burdette, Ark.—Planing Mill and Box Factory.—Three States Lumber Co. of Memphis, Tenn., is arranging to erect a planing mill and box factory.

Camden, Ark.—Mining Company.—Sound Currency Mining & Concentration Co. has increased capital stock from \$15,000 to \$30,000.

Cotter, Ark.—Electric-light and Power Plant.—W. H. Standish, Grand Forks, N. D., states there is no truth in the report that he will establish an electric-light and power plant. (Mentioned December 13.)

Fort Smith, Ark.—Box Factory.—Eagle Box Co. has been incorporated with \$10,000 capital stock by H. C. Offutt, J. G. Forrest and N. A. Kennedy.

Fort Smith, Ark.—Coal Mines.—Prairie Creek Coal Mining Co. has been incorporated with \$10,000 capital stock by T. W. M. Boone, H. B. Salls and J. D. Chastain.

Fayetteville, Ark.—Water-power Electrical Plant.—Boston-Ozark Traction Co., organized by J. C. Bonnell and J. T. Evans to operate interurban railways, will erect a 200,000-horsepower plant on White river, and contemplates transmitting electricity for lighting and heating towns within a radius of 100 miles, including Springfield, Mo., Muskogee, I. T., Fort Smith and Little Rock, Ark.

Helena, Ark.—Chair Factory.—Ford-John-

son Chair Co. of Frankfort, Ky., and Michigan City, Ind., has secured 10 acres of land on which to locate factory. It is proposed to erect two main mill buildings, each two stories, 60x250 feet, together with the necessary dryhouses and warehouses. About \$20,000 will be invested.

Hot Springs, Ark.—Mica Mines.—Reported that B. W. Eddy will arrange for the development of mica recently discovered.

Jonesboro, Ark.—Spoke Factory.—Union Manufacturing Co. has been incorporated with R. H. Meyer, president; F. M. Rosecrans, vice-president; H. D. Miller, secretary, and J. B. Moody, manager.

Little Rock, Ark.—Distillery.—Reported that E. B. Wilson of Pittsburgh, Pa., is investigating site with a view to establishing distillery.

Little Rock, Ark.—Sewerage System.—Contracts will be let December 31 for constructing sewer mains and laterals for Sewer District No. 43, Henry Weldemann, secretary, and Sewer District No. 46, Frank Wittenberg, secretary; offices at 304 Louisiana street.*

Osceola, Ark.—Telephone System.—Tri-State Telephone Co. has amended charter changing name to the Tri-State Telephone & Telegraph Co. and increasing capital stock to \$120,000. The company proposes to construct telephone line from Osceola to Memphis, Tenn.

Pine Bluff, Ark.—Excelsior Factory.—Reported that W. K. Kenworth of Lafollette, Tenn., is investigating with a view to establishing excelsior factory.

Pine Bluff, Ark.—Sawmills.—Maddon Lumber Co. is being organized by Mac Maddon of Lagrange, Ill., and associates for the establishment of sawmills in Arkansas.

Pine Bluff, Ark.—Furniture Company.—Incorporated: Reap & Crawford Furniture Co. with \$25,000 capital stock. J. S. Reap is president; J. P. Crawford, vice-president, and John W. Reap, secretary-treasurer.

Russellville, Ark.—Gas Plant.—City has granted a 50-year gas franchise to T. B. Martin, Jr., of Little Rock, Ark.

Siloam Springs, Ark.—Printery.—Incorporated: Interstate Printing Co. with \$6000 capital stock by W. E. Nicklin, Ed C. McCulloch, J. F. McKinnon, W. A. Ware, Joseph M. Park, George E. Haynes and others.

Sulphur Rock, Ark.—Cannery.—Sulphur Rock Canning Co. has been incorporated with \$5000 capital stock by W. B. Knight, Sam Tuggle, J. N. Martin and others. Size and character of building to be erected have not been decided.*

Texarkana, Ark.—Gas and Electric-light Plant.—Texarkana Gas & Electric Co. has increased capital stock from \$100,000 to \$200,000.

DISTRICT OF COLUMBIA.

Washington, D. C.—Brick Plant.—Columbia Brick Co., Inc., 525 13th street N. W., recently reported as being incorporated, has organized with following officers: President, O. B. Blackburn; vice-president, C. E. Wood; treasurer, C. M. Campbell, and L. V. Snook, secretary. The plant will have capacity of 80,000 bricks per day, and two-story building 75x200 feet will be erected. The company wants prices on considerable machinery and supplies; John C. Schaffer, 525 13th street N. W., engineer in charge.*

FLORIDA.

Fernandina, Fla.—Railroad Terminals.—Florida Railway Co., with headquarters at Live Oak, Fla., has purchased from the Fernandina Dock & Realty Co. water-front property, and will extend road to Fernandina, build terminals and develop the property. (Erroneously reported December 6 as having been purchased by the Fernandina Dock & Realty Co.)

St. Augustine, Fla.—Sewerage System.—City will vote January 8, 1907, on the issuance of \$100,000 of bonds for constructing sewerage system. E. E. Boyce is Mayor.

GEORGIA.

Albany, Ga.—Transportation Company.—Albany & Gulf Navigation Co. has been incorporated with \$4000 capital stock by S. W. Smith, C. W. Rawson, P. N. Booker, P. W. Jones, R. H. Warren, G. L. Sheppard and W. E. Myers to operate on the Chattahoochee river between Albany and the Gulf of Mexico.

Albany, Ga.—Power Plant.—Chartered: Albany Power Co. has been incorporated with \$25,000 capital stock by Alex. W. Smith and others.

Athens, Ga.—Cotton Mill.—Reported that the Southern Manufacturing Co. contemplates doubling its present plant of 7728 spindles and 184 looms.

Atlanta, Ga.—Machine Works.—Van Winkle Machine Co., reported incorporated December 13, is merely a reorganization of the E. Van Winkle Gin & Machine Works. Mell R. Wilkinson is treasurer.

Atlanta, Ga.—Printery.—Index Printing Co. has been incorporated with \$10,000 capital stock by E. G. Willingham and others.

Atlanta, Ga.—Incorporated: Gas & Burner Co. of America with \$1000 capital stock by C. E. Clark and S. W. Cross.

Atlanta, Ga.—Gas and Electric-light Plant.—Hall-Ilges Company, Candler Building, has been instructed to make an investigation and report on the feasibility of municipal ownership of gas and electric-lighting utilities in the city (recently referred to).

Atlanta, Ga.—Box and Tank Factory.—Hightower Box & Tank Co. is having plans prepared by Morgan & Dillon for a factory building; size and character of building has not been decided on. Wooden boxes and water tanks and pails are manufactured. G. J. Hightower, Jr., is president. (Mentioned December 6 as to erect building and equip for increasing capacity.)*

Augusta, Ga.—Starch Factory.—The Chamber of Commerce, W. J. Moore, secretary, is negotiating with Philadelphia (Pa.) parties relative to the establishment of a starch factory in Augusta.

Boston, Ga.—Water-works.—Town will vote January 14, 1907, on the issuance of \$12,000 of water-works bonds. Address Town Clerk.

Calhoun, Ga.—Paper-pulp Mill.—J. M. Lang and associates contemplate establishing plant for the manufacture of pulp or paper from the refuse of sawmills and want information regarding same.*

Crawfordville, Ga.—Acetylene-gas Plant.—City has voted affirmatively the issuance of \$500 of bonds for installing acetylene-gas plant, as mentioned December 6. H. Cloud is Mayor.

Dade County, Ga.—Coal Mines.—High Carbon Coal Co., organized to develop coal lands in Dade county, near Whiteside, Tenn., controls 700 acres of land, which will be increased to about 2000 acres. It has leased a plant costing \$25,000 and contemplates adding about \$5000. No coke ovens will be built. James K. Hines of Atlanta, Ga., is president; E. M. Jones, 12 News Building, Chattanooga, Tenn., vice-president and manager, and R. E. Watson, Atlanta, Ga., secretary; main office, Atlanta, Ga.; branch office, Chattanooga, Tenn., in charge of Mr. Jones. (Referred to December 13.)

Demorest, Ga.—Water-works and Electric-light Plant.—The issuance of bonds for the construction of water-works and electric-light plant is being considered. Address The Mayor.

Etna, Ga.—Machine Shops, Washing Plants, etc.—Etna Steel & Iron Co., developing iron mines near Etna, has under construction employees' dwellings, a machine shop, warehouse, etc., and will soon complete washing plants. The erection of blast furnace recently referred to will have no immediate attention; offices at Etna; New York office, 12 Broadway.

Fitzgerald, Ga.—Steam Laundry.—It is reported that a steam laundry will be established. I. Gelders can probably give information.

Greensboro, Ga.—Road Improvements.—Greene county will vote January 1 on the issuance of \$40,000 of bonds for road improvements. Address County Clerk.

Helena, Ga.—Steam Laundry.—Helena Steam Laundry has been formed with T. M. Street, president and manager. A frame building, 25x40 feet, will be erected and about \$2500 expended in building and equipment.*

Macon, Ga.—Land Improvement.—Vineville Improvement Co. has been incorporated with \$10,000 capital stock and privilege of increasing to \$100,000; T. H. Boone and Mrs. Ella Shipp, incorporators.

Macon, Ga.—Construction Company.—Chambers Construction Co. has been incorporated with \$7500 capital stock by James M. Chambers, Julian S. Chambers, both of Macon, and James A. Chambers of Fort Mitchell, Ala.

Milledgeville, Ga.—Street Paving.—City has decided to issue \$25,000 paving bonds. Address The Mayor.

Monroe, Ga.—Cotton Mill.—Reported the

Walton Cotton Mills Co. will double its present plant of 5000 spindles and 156 looms.

Rome, Ga.—Electric-light Plant.—John C. Printup, Postoffice Box 236, and associates contemplate establishing electric-light plant.*

Savannah, Ga.—Buggy Factory.—Henderson-Cranford Buggy Co., recently reorganized as the Henderson-Hull Company, and to remove the plant from Valdosta, Ga., to Savannah, has begun the erection of factory building; four stories, 65x305 feet; cement-stone blocks; heavy mill construction plan throughout. Although the factory building will not be ready for occupancy until March 1, the office will be located in Savannah beginning January 1. Charles P. Henderson is general manager. (Referred to October 4.)

Savannah, Ga.—Steamship Line.—Chartered: South Atlantic Steamship Line with \$50,000 capital stock by J. F. C. Myers, E. W. Smith, E. S. Trosdal, H. A. Schreder and J. E. Sybrandt.

Valdosta, Ga.—Lumber Mill.—T. H. McKey and L. L. Dougherty have incorporated the Suwanee Manufacturing Co. with \$15,000 capital stock.

KENTUCKY.

Bowling Green, Ky.—Mining.—Chartered: Aberdeen Mining & Towing Co., with \$30,000 capital stock, by I. B. Wilford, N. J. Wilford of Bowling Green, and Mrs. Hattie Wright of Cadiz, Ky.

Cloverport, Ky.—Electric-light Plant.—Cloverport Water, Light & Ice Co. will install electric-light plant in building with ice machinery. A boiler-house will be erected. About \$8000 will be invested.*

Covington, Ky.—Rolling Mill.—Licking Coal & Iron Co., manufacturer of bar and sheet iron, has been incorporated with \$250,000 capital stock to consolidate the various interests of the company. John C. Droege has been elected president; F. J. Droege, vice-president and manager, and Fred Macke, secretary-treasurer.

De Koven, Ky.—Coal Mining.—De Koven Coal & Coke Co. is making improvements to plant which will give a capacity of 1200 or 1500 tons daily. S. A. Scott, Pittsburg, Pa., is chief engineer.

Hopkinsville, Ky.—Grain Company.—W. D. Stowe, T. H. Harned and J. B. Jackson have incorporated the Monarch Grain Co. with \$30,000 capital stock.

Indian Bottom, Ky.—Telephone System.—T. G. Lewis, J. H. Brown and Jeff Ison have incorporated the Lewis Telephone Co.

Lexington, Ky.—Cement and Concrete Works, etc.—F. T. Justice & Co., referred to last week, is not merely a coal company as stated, but deals in lime, sand, cement, sewer pipe and freelay goods and coal and contracts for cement and concrete work principally. The company has incorporated to continue an established business.

Lexington, Ky.—Land Improvement.—South Ashland Land Co. has been incorporated with \$10,000 capital stock.

Lookout, Ky.—Coal Mines and Coke Ovens. Marrowbone Coal Co., reported June 21 as to develop coal properties on Marrowbone creek (leased from the Big Sandy Company of Boston, Mass., and Pikeville, Ky.), has begun operations. The construction of beehive coke ovens, previously reported as contemplated by the company, will begin in the near future.

Louisville, Ky.—Distillery.—C. L. Applegate Distilling Co. has been incorporated with \$100,000 capital stock. T. L. Block is president; C. L. Applegate, vice-president and general manager, and N. Bosler, secretary-treasurer. Capacity 600 bushels daily. All equipment has been purchased.

Louisville, Ky.—Electric-light and Power Plant.—White City Electric Light, Heat & Power Co. has been incorporated with \$300,000 capital stock by Richard D. Bakrow, C. C. McClarty and John M. Sharp.

Louisville, Ky.—Wagon Works.—Pickrell Cart and Wagon Works has been incorporated with \$30,000 capital stock to manufacture wagons and carts; daily capacity three. A three-story brick and frame building will be erected and about \$15,000 invested in building and equipment. Otis W. Pickrell is president; Geo. E. Terrell, vice-president; John Pickrell, 602-614 Brook street, engineer in charge; offices 43-44 United States Trust Building.

Louisville, Ky.—Manufacturing.—Spies Manufacturing Co. has been incorporated with \$150,000 capital stock by Albert Spies, W. R. Schmidt and George F. Rietze.

Lowes, Ky.—Telephone System.—Lowes Telephone Co. has been incorporated with \$1000 capital stock by W. R. Slayton, J. R. Lowe, R. P. Peck and I. C. Young.

Ludlow, Ky.—Amusement Company.—Incorporated: American Amusement Co. with

\$5000 capital stock by J. J. Weaver and Lena Coursey.

Marion, Ky.—Coal Mines.—A company is being organized for the development of 150 acres of land located on the Columbia vein and known as Nine-Acre. Blue & Nunn are interested.

Paducah, Ky.—Navigation Company.—Volght Towing Co. has been incorporated with \$10,000 capital stock by F. W. Katterjohn, Emery Volght and John Rock, to operate towboats on the Mississippi river.

Paducah, Ky.—Drug Company.—Kolb Bros. Company has been incorporated with \$75,000 capital stock by Louis F. Kolb, George C. C. Kolb and Henry Kolb.

Pikeville, Ky.—Coal Mines.—Sunshine Coal Co. has been incorporated with \$50,000 capital stock by James Hatcher, J. C. Ratliff and Richard Hatcher.

Pikeville, Ky.—Coal Mines.—Fon Rogers has leased coal properties (from the Big Sandy Company, Boston, Mass., and Pikeville, Ky.) and will develop same, installing modern equipment for a daily output of 1000 tons of coal.

Pikeville, Ky.—Coal Mines and Coke Ovens. Edgewater Coal & Coke Co. has contracted for mining machinery to be installed at once, and will in the near future build beehive coke plants. The company has under lease (from the Big Sandy Company, Boston, Mass., and Pikeville, Ky.) coal properties in Pike county which are being developed.

Pikeville, Ky.—Coal Mines and Coke Ovens. Pike Coal & Coke Co. has contracted for mining machinery to be installed at once, and the construction of proposed beehive coke ovens will be commenced in the near future. This company was mentioned previously as having leased coal properties in Pike county (from the Big Sandy Company of Boston, Mass., and Pikeville, Ky.) for development.

Pikeville, Ky.—Coal Mines and Coke Ovens. Greenough Coal & Coke Co., reported previously as having leased coal lands in Pike county (from the Big Sandy Company of Boston, Mass., and Pikeville, Ky.) and to arrange for its development, contemplates having an output of 1000 tons daily within six months. Mining machinery will be installed at once. The company will construct in the near future beehive coke plants.

Somerset, Ky.—Coal and Timber Lands.—Reported that Joe H. Gibson has purchased several thousand acres of coal and timber land in Pulaski and Whitley counties.

Stanton, Ky.—Cannery.—Stanton Canning Co. has been organized with \$10,000 capital stock to establish canning factory and will occupy a two-story frame building 40x80 feet. Contract for building and equipment has been awarded; daily capacity one carload. J. C. Patrick is president, and E. H. Fuller, secretary-treasurer. (Referred to last week.)

Stanton, Ky.—Brick and Tile Plant and Iron Foundry.—The establishment of brick and tile plant, also an iron foundry, is being considered, and J. C. Patrick is reported to be interested.

Trenton, Ky.—Acetylene Gas Plant.—Trenton Heat & Light Co., reported incorporated December 13 with \$2500 capital stock, will establish acetylene gas plant. About \$2000 will be expended in equipment. J. C. Minns is president; E. J. Ware, secretary, and W. G. Duerson, engineer in charge.*

LOUISIANA.

Bunkie, La.—Sugar Refinery.—The establishment of sugar refinery is reported as being considered by Charles Tanner of Biloxi, Miss., and associates.

Clinton, La.—Cottonseed-oil Mill.—Clinton Cotton Oil & Manufacturing Co. has been incorporated with \$125,000 capital stock. R. H. Baker is president; George J. Kelley, vice-president; E. Sammons, secretary, and A. P. Fitzhugh, general manager.

Jennings, La.—Agricultural Implements.—Chartered: Southern Implement Co., with \$15,000 capital stock; M. S. Bolinger is president; J. H. Goodman, vice-president, and J. E. Parsons, secretary.

Jennings, La.—Planting Company.—Norwood Plantation Co. has been incorporated with \$50,000 capital stock. J. A. McCorkle is president; D. C. Ritchie, vice-president; Jas. H. Heinzen, secretary, and G. A. Courtney, treasurer.

Lake Charles, La.—Sewerage System.—J. A. Landry and associates have applied for franchise to install a \$100,000 sewerage system.

Mer Rouge, La.—Water-works.—Town has contracted with the Hart Well Co. of Plaquemine, La., to sink a six-inch artesian well to supply the town with water; it is also proposed to extend the water mains 5500 feet.

Monroe, La.—Creosoting Plant.—L. L. Lieber, reported last week as having purchased and to operate the plant of the Southern Lumber Co., will erect creosoting plant in the spring to be operated in connection and will want equipment.*

New Orleans, La.—Box Factory.—Bates-McAvoy Box Co. and the Murphy Lumber Co. have been consolidated and the Louisiana Export, Box & Lumber Co. chartered to operate the combined plants; capital stock \$300,000. It is proposed to arrange at once for the erection in Algiers of box factory 100x200 feet and a private wharf 25x400 feet. About \$100,000 will be expended; daily capacity to be about five carloads. W. M. Murphy is president; C. D. McAvoy, vice-president, and E. E. Johnson, secretary-treasurer. (Referred to November 22.)

New Orleans, La.—Turpentine and Lumber Company.—D. F. Parker Company has been incorporated with \$25,000 capital stock. E. A. McKoy is president; D. F. Parker, vice-president, and A. Vizard, Jr., secretary-treasurer.

New Orleans, La.—Land Improvement.—A. B. Linn of New Orleans, R. C. Huston, City Engineer, and H. L. Fowler, both of Hattiesburg, Miss., have purchased 850 acres of cypress lands bordering on Orleans and Jefferson parishes. It is proposed to organize company with \$25,000 capital stock for the development of the timber on the property. A canal will also probably be constructed to drain the swampy land.

Pineville, La.—Water-works.—Contract will be let January 15 for the construction of water-works, for which Ira W. Sylvester, Alexandria, La., was reported November 15 as engineer in charge of construction. D. F. Huddle is Mayor.*

MARYLAND.

Baltimore, Md.—Newspaper Plant.—The News Publishing Co., proprietors of the Baltimore News, Calvert and Fayette streets, will erect an addition to its plant; six stories, 30x75 feet; Indiana limestone exterior; reinforced concrete construction; additional presses will be installed; Baldwin & Pennington, architects, Professional Building, 330 North Charles street; John Waters, builder, 23 East Centre street, and Baltimore Ferro-Concrete Co., Glenn Building, St. Paul near Fayette street, contractor for reinforced concrete work.

Baltimore, Md.—Printing Devices.—The Hartnett Vulcograph Co., 221-227 Courtland street, manufacturer of patented printing devices, has called meeting of stockholders to ratify increase of capital stock from \$100,000 to \$200,000.

Baltimore, Md.—Ice Plant.—The Co-operative Plate Ice Co., recently reported as having been incorporated with \$200,000 capital, has purchased site 111x165 feet at 7-13 South Frederick street and will erect two-story reinforced-concrete ice plant. The cost of building and equipment will be about \$175,000; capacity will be about 150 tons per day, with storage facilities for 12,000 tons. Officers of company are: Grant Stockham, president, 706 American Building; Robert Newcomer, vice-president and general manager, 119 North Fulton avenue; Charles A. Browne, manager of construction, Calvert Building, and Douglas O'Brien, Philadelphia, Pa., consulting engineer. Contracts for tanks have been awarded.

Baltimore, Md.—Canning Factory.—The Gibbs Preserving Co., 2305 Boston street, will erect four-story reinforced-concrete addition to its canning factory.

Emmitsburg, Md.—Overall, Shirt and Wrapper Factory.—Emmitsburg Manufacturing Co., reported incorporated December 6 with \$5000 capital stock, has secured building and will install equipment at once for the manufacture of overalls, shirts, wrappers, etc. Vincent Sebold is president; J. Stewart Annan, vice-president; Dr. D. E. Schue, secretary-treasurer, and Samuel L. Rowe, general manager.

Hagerstown, Md.—Electric Plant.—Hagerstown Electric Railway Co. is installing additional machinery in power-house, including two 15-horse-power generators, which have been purchased.

Mt. Savage, Md.—Coal Mines.—Reported that the Brailer Mining Co. of Cumberland, Md., has purchased at \$33,200 the improved mining property of the George's Creek Bald Knob Coal Co., located in Allegany county.

Williamsport, Md.—Shale Deposits.—Douglas H. Gordon, president of International Trust Co., Baltimore, Md., has purchased a tract of land containing shale deposits near Williamsport. Arrangements for development may be made later on.

Williamsport, Md.—Water-works.—D. G. Adelberger, engineer, Baltimore, Md., will submit to the town council a proposition to

install water-works. It is proposed to erect a standpipe on the highest elevation above town and secure water from the Potomac river. It is estimated that a system can be established for \$25,000 or \$30,000.

MISSISSIPPI.

Aberdeen, Miss.—Cotton Mill.—The Business League proposes the organization of company with capital stock of \$125,000 to build a cotton mill.

Bay St. Louis, Miss.—Gas Plant.—Bay St. Louis Ice and Bottling Works, A. L. Stokoe, managing officer, will probably install a 20,000-cubic-foot-capacity tank for gas. No contracts have yet been made nor system decided on.*

Ellisville, Miss.—Dry-kilns.—Lowery Lumber Co. will erect three 80-foot dry-kilns, replacing structures reported burned December 13. Between \$7000 and \$8000 will be expended.

Hattiesburg, Miss.—Electric-power Plant.—Hattiesburg Traction Co., H. A. Camp, president, is completing arrangements for the erection of proposed power plant.

Jackson, Miss.—Cotton Choppers.—Butler Cotton Chopper Co. has been incorporated with \$10,000 capital stock by B. C. Butler, C. E. McDonnell, R. W. Lewis and others.

Laurel, Miss.—Sash and Box Factory.—Laurel Sash & Box Co. will make extensive improvements to plant, enlarging same and increasing the output.

Meridian, Miss.—Furniture Company.—E. Threefoot, E. S. Hostick and others have incorporated the Ricket Furniture Co. with \$100,000 capital stock.

Morgan, Miss.—Hardware Company.—Connell & Shelton Hardware Co. has been incorporated with \$10,000 capital stock by J. R. Shelton, Jeff Connell and others.

Natchez, Miss.—Electric Plant.—Bids will be received until March 7, 1907, for lighting the city for a term of 10 years from March 7, 1908. Address George T. Eisele, City Clerk, or S. B. Stewart, chairman lights and water committee.*

Natchez, Miss.—Chartered: Bulls Company, with \$10,000 capital stock, by G. P. Bulls, C. E. Williams and others.

Natchez, Miss.—Package Company.—G. P. Bulls, E. M. Lake and others have incorporated the Natchez Package Co. with \$30,000 capital stock.

Raymond, Miss.—Limestone Lands.—A. H. Longino of Jackson, Miss., is reported as organizing company to develop limestone properties recently discovered near Raymond.

Yazoo City, Miss.—Incorporated: C. H. Clark Company, with \$20,000 capital stock, by E. E. Harmon, T. C. Bunch and others.

MISSOURI.

Alba, Mo.—Mining.—A. W. Aylor, W. G. Koontz, W. H. Bolton and others have incorporated the McLanahan Mining Co. with \$60,000 capital stock.

Bonne Terre, Mo.—Lumber Company.—Bonne Terre Lumber Co. has been incorporated with \$60,000 capital stock by J. H. Dretesky, H. D. Evans, W. H. Ward and others.

De Soto, Mo.—Automatic Block-signal System.—Reported that the St. Louis, Iron Mountain & Southern Railway has contracted for the installation of 54 miles of automatic block-signal system (from De Soto to Hagan, Mo.) costing \$45,000. P. Carroll, De Soto, Mo., is division engineer.

Joplin, Mo.—Bridge Company.—Southwestern Bridge Co. has been incorporated with \$100,000 capital stock by J. K. Wingert, E. J. Tutty, H. W. Klase and others.

Joplin, Mo.—Lead and Zinc Mines.—Gadmus Lead & Zinc Co. has been incorporated with \$50,000 capital stock by W. G. Perry, E. L. Sadler, S. A. Hazelbaker and others.

Kansas City, Mo.—Cement Plant.—Blue Seal Portland Cement Co., 264 New York Life Building, is arranging for the purchase of the necessary machinery and equipment for its proposed cement plant. L. H. Weber is president of the company; J. H. Marshall, treasurer and general manager, and J. W. Schroeder, auditor.

St. Louis, Mo.—Embossing Plant.—National Embossing Co. has purchased site on which to locate factory building; to be two stories, of brick. Plans for the structure have been prepared by H. W. Kirchner. The company has a capital stock of \$100,000 and was organized to introduce embossed work, duplicating that done by hand in France and Germany. George R. Steinhauer, 6235 Michigan avenue, is president.

St. Louis, Mo.—Brick Works.—The increase of capital stock of the Hydraulic Press Brick Co. from \$3,500,000 to \$10,000,000, mentioned December 13, is merely for the purpose of

combining under one corporate head all of the interests represented by the various hydraulic press-brick plants which they control throughout the United States; principal office, 1001 Missouri Trust Building.

St. Louis, Mo.—Car Works.—St. Louis Car Co. has increased capital stock from \$2,500,000 to \$3,000,000.

St. Louis, Mo.—Iron Foundry.—Kaysing Iron & Foundry Co. has been incorporated with \$10,000 capital stock by W. G. Kaysing, C. E. Collett, Edward DeVries and others.

St. Louis, Mo.—Plumbing and Heating Company.—Incorporated: Wm. M. Clancey Plumbing & Heating Co., with \$5000 capital stock, by William M. Clancey, Redmund S. Brennan, John R. Clancey and Regina A. Brennan.

St. Louis, Mo.—General Construction Contractors.—H. F. Vogel Contracting & Railway Supply Co. has been incorporated with \$5000 capital stock to do a general contracting business in the construction of railways, water-works, light plants, etc.; incorporators, H. F. Vogel, Nicholas Le Grand and W. E. Fisse.

St. Louis, Mo.—Ice Plant.—Star Ice Co., recently incorporated with \$2000 capital stock, has completed organization with Hinton G. Lee, president and general manager; Howard W. Elmore, vice-president and treasurer, and George W. Quade, secretary.

Webb City, Mo.—Mining.—J. S. Young, A. W. Aylor, Annie J. Aylor and others have incorporated the Good Day Mining Co. with \$80,000 capital stock.

NORTH CAROLINA.

Albemarle, N. C.—Knitting Mill.—Lillian Knitting Mills is reported as to add to its present knitting equipment.

Andrews, N. C.—Water works.—The election to issue bonds for the construction of water-works has been called off. J. W. Walker is Town Clerk.

Burlington, N. C.—Cotton Mill.—Hopdale Mills Co. is reported as having begun the erection of another story to present building and as to add 2200 twister spindles; present equipment 6200 spinning and 2000 twister spindles.

Cana, N. C.—Flour Mill and Sawmill.—Crandall Bros., R. F. D. No. 1, will rebuild plant recently burned. It is proposed to erect a three-story building 20x40 feet for roller mill, also sheds for sawmill; capacity 6000 to 10,000 feet. About \$3000 will be invested.*

Dillsboro, N. C.—Flour and Feed Mill.—C. D. W. Colby, Joseph J. Hooker of Dillsboro and W. C. Hanson of Minneola, Fla., have incorporated the Hanson Mill Co. with an authorized capital stock of \$50,000.

Durham, N. C.—Timber Development.—E. W. West, Manchester, Va., has made no arrangements for the development of timber land recently purchased near Durham.

Fayetteville, N. C.—Ice Plant.—Fayetteville Ice & Manufacturing Co. has purchased site on which to erect 60-ton ice plant. Company was reported October 18 as increasing capital stock from \$25,000 to \$50,000.

Greensboro, N. C.—Cotton Mill.—Pomona Cotton Manufacturing Co. will increase its equipment to the extent of 10,000 spindles and accompanying cards, etc., and contract has been awarded for the new machinery. This company has been operating 10,750 spindles and 330 looms. (Lately referred to.)

Greensboro, N. C.—Bottling Works.—Greensboro Pepsi-Cola Bottling Co. has been incorporated with \$10,000 authorized capital stock by J. T. Hine, W. S. Hine and F. P. Alspaugh.

Greenville, N. C.—Sewerage System.—Bent-Kason Construction Co., Gloversville, N. Y., has contract for constructing and the Chattanooga Sewer Pipe & Fire Brick Co. of Chattanooga, Tenn., contract for furnishing materials for sewerage system mentioned November 15.

Greenville, N. C.—Knitting Mill.—Commercial Knitting Co. has increased capital stock from \$26,000 to \$36,000, as recently reported. It has erected an addition to be equipped with bleaching apparatus, and the machinery has been ordered; is also changing power plant from gasoline to steam, the equipment for this having been purchased.

Hendersonville, N. C.—Hardware Company. Clarke Hardware Co. has been incorporated with \$25,000 capital stock by Charles S. Clarke, B. C. Clarke and Louis Clarke.

Hendersonville, N. C.—Cotton and Water-power Electrical Plant.—Reported that S. B. Tanner, president of the Henrietta Mills, Henrietta, N. C., has purchased the Green River Falls water-power property and will develop same, intending to transmit the power by electricity for the operation of a cotton

mill which he and associates are reported to build. This mill lately referred to. It is said the water-power will develop from 600 to 700 horse-power.

Kings Mountain, N. C.—Cotton Mill.—Bonnie Cotton Mills is reported as having contracted for additional machinery, including 2500 twister spindles.

Mebane, N. C.—Hardware.—Chartered: Tyson-Mebane Hardware Co., with \$10,000 authorized capital stock, by T. D. Tyson, W. Y. Mebane and R. H. Tyson.

Newbern, N. C.—Supply Company.—Harry Hahn, Zeb V. Parker and John C. Parker have incorporated the Home Supply Co. with \$5000 authorized capital stock.

Pineville, N. C.—Water-works.—Construction work is well under way on the water-works system being installed by the Dover Yarn Mills, and it will be in operation in about six weeks. The well plant has a capacity of 20,000 gallons daily, and consists of four wells drilled into the decomposed rock and connected into a gang; water will be pumped by electric power to a reservoir and thence by gravity to all parts of village and the two mills; C. G. Hubbell, Charlotte, N. C., engineer in charge. (Referred to December 6.)

Reidsville, N. C.—Cannery.—Acme Canning Co. has been incorporated with an authorized capital stock of \$10,000. The plant of the old Acme Canning Co. has been purchased and will be operated. D. E. Wootton is secretary-treasurer.

Sallsbury, N. C.—Lumber Plant.—Brenner Lumber Co., it is reported, will double the capacity of plant.

Selby, N. C.—Timber Land.—N. R. Selby, it is reported, has purchased a tract of timber land in Garrett county for development.

Selma, N. C.—Knitting Mill.—Selma Knitting Mills is reported as to add 40 knitting machines and new machinery in dyeing and finishing department. This company referred to in September as beginning operations with 20 knitting machines and proposing to add 40 and possibly 80 machines later. M. C. Winston is president.

Statesville, N. C.—Concrete-block Factory.—G. W. Crouch is considering the establishment of concrete-block factory.

Taylorsville, N. C.—Lumber Company.—Lafayette Everhart, E. L. Everhart and H. C. Everhart have incorporated the Everhart Lumber Co. with an authorized capital stock of \$25,000.

Wilmington, N. C.—Land Improvement.—Chartered: Wilmington Suburban Co., with \$15,000 capital stock, by M. S. Willard, E. Payson Willard and C. W. Yates.

SOUTH CAROLINA.

Anderson, S. C.—Cotton Mill.—Toxaway Mills is reported as having awarded contract for about 4000 spindles and 110 looms.

Anderson, S. C.—Paving.—It is reported that about \$75,000 will be expended during the coming 12 months for cement sidewalks, the property-owners paying one-third and the city the balance. Address The Mayor.

Cameron, S. C.—Furniture and Mattress Factory.—Wesner & White Manufacturing Co. is investigating sites at various points for the establishment of plant with a view to getting better railroad and other facilities. If plant is moved, it is proposed to engage more extensively in the manufacture of certain lines of furniture, and also enlarge mattress, spring-bed and excelsior departments. Some new machinery will likely be purchased. John O. Wesner is president and general manager.

Gaffney, S. C.—Cotton Mill.—Reported that the Irene Cotton Mills will double its plant.

Greer, S. C.—Furniture Company.—Greer Furniture Co. has been incorporated with \$6000 capital stock by L. A. Stone and others.

Seneca, S. C.—Publishing.—Seneca Publishing Co., reported organized last week, has not decided on size and character of building to be erected. It is proposed to install electric motors during the summer. About \$6000 will be invested in equipment. Wm. E. Neilson is manager.

Spartanburg, S. C.—Printery.—Jerry Black has purchased and will operate the Trimmer printing plant. It will be known as Black's Printery; office 20-24 Wall street; postoffice box 384.*

Sumter, S. C.—Lumber Company.—Chartered: Johnson-McLaughlin Lumber Co., with \$30,000 capital stock, by W. B. McLaughlin and J. W. Johnson.

Sumter, S. C.—Development Company.—Southern Development Co. has been incorporated with \$10,000 capital stock by P. G. Bowman and Geo. D. Levy.

Swansea, S. C.—Land Improvement.—Swan-

sea Real Estate, Mercantile & Investment Co. has been incorporated with \$5000 capital stock by J. R. Langford, C. J. Rucker, S. J. Derrick, F. M. Hodges, S. I. Hutto and P. E. Hutto.

Ulmers, S. C.—Lumber Company.—Boothe Lumber Co. has been incorporated with \$10,000 capital stock. R. I. Manning is president, and Geo. P. Boothe, secretary-treasurer.

TENNESSEE.

Bethesda, Tenn.—Phosphate Mines.—Bethesda Phosphate Co. has been organized with \$10,000 capital stock by H. F. Alexander, W. I. Collier, Ewing Kannon, J. A. Matthews and W. J. Moore.

Bristol, Tenn.—Water-works.—The city will petition the Legislature for the privilege of issuing \$350,000 of bonds for water-works. The purchase of the Bristol-Goodson Water Co.'s plant is under consideration. Address The Mayor.

Brownsville, Tenn.—Ice Plant.—Frank Foltz of Humboldt, Tenn., is reported as arranging for the installation of a 13-ton ice plant.

Centerville, Tenn.—Phosphate Mines.—Alfred Phosphate Co. has been organized with \$75,000 capital stock by Charles M. Gilbert, W. C. McAllister, W. D. Gale, G. P. Wade and C. T. Boyd, to develop phosphate beds in Hickman county, near Swan creek.

Chattanooga, Tenn.—Printery.—Purse Printing Co. has been incorporated with \$50,000 capital stock by R. P. Purse, Z. W. Wheland, C. H. Ruston, Howard Mitchell and Charles W. Rankin.

Chattanooga, Tenn.—Spoke Works.—Reported that Frank E. Milburn has purchased and will operate the Lion Spoke Works, located in Alton Park.

Chattanooga, Tenn.—Land Improvement.—T. G. Montague and others have purchased land in East Chattanooga for development purposes.

Chattanooga, Tenn.—Tobacco Works.—Henry Tobacco Co. has been incorporated with \$20,000 capital stock to operate tobacco factory on the co-operative plan. It will be located at 615 11th street. D. S. Henry is president and general manager; M. A. Crenshaw, vice-president; W. F. Hall, secretary-treasurer.

Chattanooga, Tenn.—Trousers Factory.—Cleveland Woolen Mill of Cleveland, Tenn., has leased a building on Carter street and will equip three floors for the manufacture of trousers, furnishing the material from woolen mills. It is proposed to install 45 machines at once, which will later be increased to 100. All equipment has been purchased and will be installed by January 1. Will L. Rogers is secretary-treasurer. (Referred to last week.)

Clarksville, Tenn.—Upholstering Plant.—J. Rollin Hill of Ottawa, Kan., will install upholstering establishment and engage in light manufacturing.

Columbia, Tenn.—Phosphate Mines.—Independent Phosphate Co. has been organized by about 20 fertilizer companies in various States and completed the purchase of 1965 acres of phosphate lands in Maury and Hickman counties, the holdings of J. H. Carpenter, J. W. Howard and associates. The new company will take possession of the properties and mining will be continued. The total tonnage of high-grade rock on the lands is variously estimated at from 4,000,000 to 8,000,000 tons. Offices will be opened in Columbia with Frederic Hardy in charge.

Del Rio, Tenn.—Cotton Mill.—Reported that the Del Rio Cotton Mills is being organized by John N. Adams of Del Rio, M. H. Wheeler of Neenah, Wis., and Geo. M. Ryall of 150 Nassau street, New York. Mr. Adams was mentioned in October as proposing to form a cotton factory company.

Jefferson City, Tenn.—Zinc Mines.—New Market (Tenn.) Zinc Co. has purchased 325 acres of zinc lands near Jefferson City for development purposes. The company is now building log washers and shafthouses. J. H. Bartlett is superintendent.

Jellico, Tenn.—Coal Mines.—Burk Hollow Coal Co. has been reorganized and incorporated with \$10,000 capital stock. It has leased and will operate the Mahan boundary coal land adjoining the Burk Hollow property. It is expected the output of this mine will be increased to eight or ten cars daily. The company also proposes to double the capital stock, as the installation of a \$10,000 electric plant is contemplated.

Johnson City, Tenn.—Sawmill.—Johnson City Coal & Lumber Co. has been reorganized with \$35,000 capital stock by Sam R. Sells of Johnson City and Chas. T. Hayworth of Sault Ste. Marie, Mich. Two acres of ground has been purchased at Carnegie and a building 68x168 feet erected and

equipped as sawmill with a daily capacity of 100,000 feet.

Memphis, Tenn.—Bridge Construction.—Plans are being prepared and bids will be asked at once for the construction of bridge over the Southern Railway tracks at Madison street, mentioned last week. The bridge will cost approximately \$25,000, the city, the Memphis Street Railway Co. and the Southern Railway Co. each bearing one-third of the expense. Address James A. Omberg, Jr., City Engineer.

Memphis, Tenn.—Cider and Vinegar Factory.—Chartered: National Fruit Products Co., with \$10,000 capital stock, by M. D. Seches, I. Sugarman, I. B. Myers, A. W. Pearce and Harry Seches to manufacture vinegar and cider.

Memphis, Tenn.—Lumber Company.—Hugo Kastor, C. M. Collier, Albert Miller, G. H. Thayer and A. H. Murray have incorporated as Kastor & Co. with \$20,000 capital stock.

Memphis, Tenn.—Bridge Construction.—Contract will be let January 17 for bridge reported December 6 to be constructed over the Southern Railway tracks at Madison street; to have two spans about 75 feet each; width of bridge about 65 feet; through girder type; four girders to each span; reinforced concrete floor system. J. A. Omberg, Jr., is city engineer.

Nashville, Tenn.—Flour Mill and Grain Elevator.—J. A. Jones and O. L. Jones are reported as negotiating for site on which to erect flour mill and grain elevator.

Nashville, Tenn.—Flour Mill.—Tri-State Milling Co. has been reorganized with Joy Youngblood secretary and manager. Its capital stock has been increased from \$50,000 to \$100,000, and the capacity of mill will be increased from 1000 to 1500 barrels of flour daily.

South Port (not a postoffice), Tenn.—Little Bigby Phosphate Co. has been organized with \$40,000 capital stock by J. M. Elliott, Eugene Anderson, J. J. Lockhart, J. A. Skelley and H. F. Alexander, all of Columbia, Tenn., to mine phosphate near South Port.

TEXAS.

Barstow, Texas.—Land Improvement.—Chartered: Pyote Development Co., with \$14,000 capital stock, by W. A. Hudson, J. F. Starley, W. L. Fulmer, Thomas H. Bomar, James F. Ross, J. B. DuBose and James E. Bowen.

Beaumont, Texas.—Sawmills.—Nona Mills Co. has increased capital stock from \$200,000 to \$400,000.

Brownwood, Texas.—Oil Wells.—Texas Paraffine Oil Co., reported incorporated December 6 under Dallas, Texas, with \$100,000 capital stock, will drill for oil and develop other mineral resources in Brown county. C. M. Gearing, Brownwood, is vice-president and field manager; main office, 607 Scollard Building, Dallas, Texas.

Commerce, Texas.—Water-works.—City is considering the installation of water-works; C. E. Randle is City Secretary.

Dallas, Texas.—Art Glass.—Chartered: Dallas Art Glass Co., with \$30,000 capital stock, by Louis L. Thalheimer, V. J. W. Thalheimer and Charles D. Anderson.

Dallas, Texas.—Coffin Factory.—Dallas Coffin Co. has been incorporated with \$50,000 capital stock by J. F. Parks, Jr., William P. Ellison and F. D. Crosby.

Dallas, Texas.—Land Improvement.—Security Realty Co. has been incorporated with \$10,000 capital stock by William Thompson, T. L. Camp, J. S. Adelhoff, W. G. Scarff, C. P. Russell, J. S. Kendall, Jr., E. G. Myers and L. A. Russell.

Dallas, Texas.—Land Improvement.—Flippen-Prather Realty Co. has been incorporated with \$75,000 capital stock by Edgar L. Flippen, Hugh E. Prather and J. J. Eckford.

Denison, Texas.—Dairy Farm.—It is proposed to organize a company with \$10,000 capital stock for the establishment of the Model Dairy Farm, to be located near the city. J. B. Poston, president Denison Board of Trade, can probably give information.

Fort Worth, Texas.—Electric-light and Power Plant.—Reported that the Citizens' Light & Power Co., the Rosen Heights Traction Co. and the Arlington Heights Traction Co., recently consolidated, will arrange for the erection of a large power plant to afford power for the traction properties and light for the lighting company.

Fort Worth, Texas.—Iron and Steel Works. Fort Worth Iron & Steel Co. has been incorporated with \$200,000 capital stock by William Capps, W. B. Paddock, W. H. Mills, J. T. Anderson, Q. T. Moreland, B. L. Waggoner, William Bryce and associates.

Fort Worth, Texas.—Glass Factory.—Fort Worth Glass & Sand Co., reported incorporated December 6, will operate glass factory

having a capacity of 21 tons every 24 hours. A wood and corrugated iron building, with a floor space of 12,800 square feet, will be erected. Dave Wolverton, present address R. R. No. 5, Box 87, is engineer in charge of construction. (Referred to last week.)*

Galveston, Texas—Ice and Power Plants.—Galveston Brewing Association is completing arrangements for improvements to ice plant increasing the capacity from 125 tons to 225 tons daily. It is also proposed to improve power plant, installing a new light and power system (the various hoists, cranes, etc., now operated by steam or hand to be operated by motors) and add a 350-horsepower boiler. An ice crusher, for preparing the ice for refrigerator cars, will connect with a chute enabling cars to be iced in 15 minutes. It is estimated that about \$150,000 will be the cost of improvements.

Galveston, Texas—Causeway.—State Railroad Commission, with offices at Austin, Texas, will on January 22 consider the advisability of issuing an order to the various railroads entering Galveston, requiring them to build and construct a causeway at or about the point where the bridge used by all the railroads crosses the bay connecting the mainland and island of Galveston; to be built of substantial material and of not less than 300 feet width on the surface, for the more commodious and safe use of companies making deliveries of commerce carried by them to and from the port of Galveston. (James Stewart & Co. of New York, N. Y., were reported August 16 as having submitted plans to the Galveston Causeway Committee, V. E. Austin, secretary, for building of said causeway.)

Greenville, Texas—Ice Plant.—Greenville Ice Co. has increased capital stock from \$75,000 to \$125,000.

Hearne, Texas—Electric-light Plant.—Hearne Light & Power Co. has been incorporated with \$20,000 capital stock by G. H. Albers, H. S. Morehead, W. T. Bartholomew and W. E. Hulton of Franklin, Texas; J. J. Hall and J. R. Henry of Hearne, Texas. (Messrs. Albers and Bartholomew were reported November 22 as having purchased the electric-light plant recently operated by P. L. Brady.)

Houston, Texas—Fig-preserving Plant.—J. C. Carpenter Fig Co., which is establishing fig-preserving plants at various points, is arranging for the erection of a \$1500 plant at Friendswood and a \$2500 plant at Alga. A one-story building 40x100 feet will be erected. J. C. Carpenter is president and manager.*

Houston, Texas—Cotton Pickery.—Reported that S. K. and S. T. McIlhenny, proprietors of the Houston Cotton Pickery, will enlarge their warehousing facilities and make other improvements to plant during 1907.

Houston, Texas—Iron Culverts, Brick and Cement.—W. T. Towsey, George H. Haase and N. C. Abbott have incorporated the Lone Star Culvert Co., to manufacture iron culverts, brick and cement.

Houston, Texas—Timber Company.—Texas-Oregon Timber Co. has been incorporated with \$1,000,000 capital stock by J. M. Rockwell, L. B. Menefee and Jesse H. Jones.

Houston, Texas—Concrete Construction.—S. S. Ashe, B. B. Jones and F. J. Sargent have incorporated the Texas Concrete Construction Co. with \$5000 capital stock.

Houston, Texas—Steam Laundry.—Morgan's Penny Laundry has been chartered with \$2000 capital stock by W. H. Howe, J. E. Burkhardt and L. Johnson.

Hubbard, Texas—Medicine Factory.—Chartered: Gyn-a-Septin Company with \$10,000 capital stock by W. M. Keen, R. L. Sanders and F. M. Pitts.

Ledbetter, Texas—Lignite and Coal Mines. R. P. Hackworth, George Nott and George McClellan have incorporated the Big Four Coal Co. with \$25,000 capital stock.

Midlothian, Texas—Brick Works.—R. L. Ingram of Midlothian and D. L. Joynt of Gonzales, Texas, will organize company with \$40,000 capital stock to establish brick plant.

Nacogdoches, Texas—Land Improvement.—Chartered: Hoosier Development Co. with \$20,000 capital stock, by L. L. Cook, P. P. Parnell, J. E. Hawkins and E. A. McLaughlin.

Palestine, Texas—Electric-light, Ice and Cold-storage Plants.—Palestine Electric Light & Ice Co., George W. Burkett, owner, has completed the purchase of machinery and equipment for electric-light, ice and cold-storage plants, which includes two 300-kilowatt turbine alternators; two water-tube boilers, 1000 to 1200 horse-power; concrete stock; equipment for a 45-ton ice plant, etc. The cold-storage plant will have a capacity of 20,000 cubic feet. About \$100,000 will be the cost of completed plant.

Pearsall, Texas—Farming Lands.—Texas

Land & Development Co., recently organized at San Antonio, Texas, has purchased 70,000 acres of land in Frio county, adjoining the town of Pearsall, which will be divided into small farms and sold to actual settlers. About 1200 acres of the land is already under cultivation.

Richardson, Texas—Road Building.—W. H. Goode, Dallas, Texas, has contract at \$11,612.50 for constructing a road between Richardson and Carrollton, Texas.

Rockwall, Texas—Cotton Mill.—Incorporated: All-Cotton Mattress, Comforter & Batting Co., capitalized at \$10,000, by W. C. Bishop and E. D. Force of Rockwall, J. W. Allison of Ennis, Texas, and J. W. Hoover of Fort Worth, Texas.

Rockwall, Texas—Electric-light Plant.—Rockwall Electric Light Co. has been incorporated with \$5000 capital stock by W. C. Bishop, B. H. Wisdom, E. D. Force, Gus Hartman and I. J. Austin.

San Antonio, Texas—Machinery and Supplies.—San Antonio Machine & Supply Co. has increased capital stock from \$100,000 to \$150,000.

San Antonio, Texas—Hardware.—San Antonio Hardware Co. is the correct title of company reported September 20 as incorporated. S. L. Jeffers is president; J. A. Brownlee, vice-president; C. S. Walker, secretary, and W. W. Sanger, treasurer.

Seymour, Texas—Steam Laundry.—Seymour Steam Laundry, reported incorporated December 6, will erect a frame building 30x60 feet; about \$4000 will be expended.

Sherman, Texas—Oil Refinery.—Sherman Refining Co., recently organized by J. C. Tasey and associates to establish refinery, has begun the erection of plant to have a daily capacity of 300 barrels. (Referred to September 6.)

Texas City, Texas—Rice Mill.—The establishment of rice mill at an available point on the bay shore at Texas City or some other point in Galveston county is being considered by John B. Hardy and associates. It is estimated that about \$1,000,000 will be invested. Mr. Hardy can be addressed in care of the Rice Hotel, Houston, Texas.

Waco, Texas—Sewerage System.—City has voted affirmatively the \$60,000 bond issue mentioned November 22 for constructing sewerage system. Address The Mayor.

VIRGINIA.

Berkley, Va.—Marine Railway.—The Norfolk Marine Railway Co. will perfect organization during the week with Geo. P. Hudson of Norfolk, Va., president, and Jos. M. Lawrence of Berkley, manager, to operate marine railway plant, including waterfront property in Berkley ward on Norfolk harbor, fronting about 500 feet on the harbor line. It has two marine railways, one operated by electricity and the other will be in a few weeks; also a large and modern machine shop and foundry. The erection of a third marine railway is contemplated in the near future. It is proposed to engage in the construction of barges, both large and small, and to do repair work to vessels built of iron or wood, making repairs to hull or machinery. Address all communications for the present to J. M. Lawrence, manager, Norfolk Marine Railway Co., Berkley, Va. John L. Roper of the John L. Roper Lumber Co. is interested in the new organization.

Boydton, Va.—Land Improvement.—Chartered: Mecklenburg Realty Co. with C. J. Falkner, president; J. W. Walls, secretary-treasurer, and E. W. Wells, general manager.

Broadford, Va.—Gypsum Mining and Manufacturing.—Southern Gypsum Co., reported incorporated last July, will mine gypsum and manufacture gypsum products; daily capacity 400 tons. A frame building will be erected. F. A. Wilder is president; A. Ristine, vice-president; Chas. Hull Ewing, secretary-treasurer, and C. H. Wallinger, superintendent.

Danville, Va.—Clothing Factory.—Morotock Manufacturing Co. will erect four-story brick and gravel building 73x128 feet, of mill construction, and equip for the manufacture of men's clothing. J. R. Jopling is president.

Danville, Va.—Gas Plant.—Russell Mining & Manufacturing Co., St. Louis, Mo., has contract for building the basis of new gas plant; to consist of the placing of six half-depth regenerative benches, containing six retorts each, together with all the necessary ironwork, at a cost of \$10,500. Frank Talbott is superintendent of city water, gas and electric-light plant. (Referred to October 4.)

Grottoes, Va.—Electric-light Plant.—City is taking preliminary estimates on the installation of electric-light plant. Address City Clerk.*

Lynchburg, Va.—Candy Factory.—Harris Woodson & Co. will erect five-story brick building 65x120 feet. About \$45,000 will be

invested in building and equipment; E. G. Frye, architect, and E. C. Wiley, engineer in charge.*

Lynchburg, Va.—Clothing Factory.—Briscoe-Ivey Company, recently incorporated with \$40,000 capital stock, has secured building which will be equipped for the manufacture of clothing.

Newport News, Va.—Steam Laundry.—Old Dominion Land Co. has let contract to E. Morgan for the erection of building to be occupied by the Monarch Steam Laundry; two stories, 25x100 feet; brick; cost \$5000.

Newport News, Va.—Street Improvements. City will vote February 28 on the issuance of \$100,000 of bonds for permanent street improvements. Address Mayor Buxton.

Norfolk, Va.—Mineral Water.—Chartered: Diamond Spring Water Co., with an authorized capital stock of \$25,000. J. Hunt Hannah is secretary-treasurer.

Norfolk, Va.—Land Improvement.—East Norfolk Realty Corporation has been chartered with \$100,000 capital stock to develop about 600 acres of land in Princess Anne county as a factory settlement. R. B. Fentress is president; W. H. Mercer, vice-president, and F. M. Sutton, secretary-treasurer.

Norfolk, Va.—Paving Work.—Boulevard Commission, H. B. Goodridge, chairman, will let contract January 10 for building a macadam roadway on Colley avenue; also for improving a part of Colonial and Jamestown avenues; W. T. Brooks, City Engineer.*

Norfolk, Va.—Street Paving.—New bids will be asked at once for paving Middle street, two blocks of North street and one block of Lincoln street, all bids received having been rejected. A separate bid will be asked for excavating, hauling dirt and concreting, for the purpose of ascertaining what it would cost to pave the streets by day labor. W. F. Brooke is City Engineer.

Norfolk, Va.—Amusement Company.—Monitor & Merrimac Company has been chartered with \$230,000 capital stock. Goldsboro Serpell is president; Cornelius DeWitt, vice-president; C. A. Everhart, secretary, and H. M. Kerr, treasurer.

Norfolk, Va.—Laundry.—Chartered: Exposition Laundry Corporation, with a minimum capital stock of \$45,000, to conduct a laundry at the exposition and afterwards make it a permanent laundry. John T. Bolton is president; J. L. Belote, vice-president; Benjamin Lowenberg, secretary, and L. H. Hornthal, treasurer.

Norton, Va.—Water works.—Town will let franchise to the highest bidder for the installation of water-supply system. J. L. Lyon is Mayor.*

Phoenix, Va.—Ice Plant.—James H. Brinson has contract to erect building for the Phoenix Ice & Coal Co., reported September 27, to establish 25-ton ice plant.

Pulaski, Va.—Ice and Cold-storage Plant.—Hygienic Ice & Cold Storage Co. has been organized with \$15,000 capital stock to operate 10-ton ice and cold-storage plant. A building, 60x100 feet, will be erected; about \$12,000 will be expended in building and equipment. Geo. D. Peters is president; J. A. Van Mather, vice-president, and J. M. Bosonk, secretary-treasurer. For information address Peters & Goodwyn, Bristol, Va. Tenn. (Referred to last week.)

Richmond, Va.—Tobacco Factory.—Falk Tobacco Co. has secured site on which to erect a four-story brick factory building, which will be equipped for increasing the present capacity; main office, 149 Broadway, New York.

Richmond, Va.—Land Improvement.—Bone Island Development Co. has been incorporated with \$15,000 capital stock. Ashton Starke is president.

South Boston, Va.—Light and Power Plants, etc.—Chartered: Washington-Connecticut Company, with \$100,000 capital stock, to operate light and power plants, etc. W. D. Hill is president; R. Holt Easley, secretary-treasurer.

Star Tannery, Va.—Stave and Heading Mill.—J. T. Orndorff is arranging to install a stave and heading mill.*

Wytheville, Va.—Sewerage System.—Wytheville Sanitary Co. will construct sewerage system, as mentioned November 22. A. F. Brown, Culpeper, Va., is engineer in charge.*

WEST VIRGINIA.

Bayard, W. Va.—Coal Mines.—Howard Fulk, Clarence Fulk, C. C. Shaffer, James O'Brien, Lou Blocher, Irvan Boring, Dr. G. T. Plummer, Peyton Dixon, all of Bayard, and John Jose of Piedmont, W. Va., have formed a company to develop coal lands recently purchased.

Bluefields, W. Va.—Gas Plant.—W. J. Newenham, E. L. Bowman and associates have applied for franchise to establish gas plant.

Burlington, W. Va.—Telephone System.—Burlington Telephone Co. has been incorporated with \$6000 capital stock by Dr. F. L. Baker of Burlington, L. J. Forman of Petersburg, Va.; C. D. Bowman of Moorefield, W. Va.; G. P. Miller of Romney, W. Va., and associates.

Charleston, W. Va.—Sewerage System.—The drainage committee of the City Council and a special committee from the Chamber of Commerce at a meeting recently held decided to recommend that \$200,000 be expended for the construction of sewerage system, for which \$125,000 of bonds were reported November 22 as voted; the remaining \$75,000 to be paid by property owners along line of sewerage. T. Chalkley Hatton of Wilmington, Del., who prepared the plans for the system, will probably be commissioned to superintend the construction.

Colebank, W. Va.—Lumber Mill.—Reported that J. W. Shaw will erect lumber mill, replacing plant recently burned.

Crimson Springs, W. Va.—Iron Mines.—Reported that Malcolm W. Cross of Allentown, Pa., has purchased about 3000 acres of iron ore land in Monroe county, near Crimson Springs; the tract is also said to contain a body of timber. Purchase price, it is stated, was \$38,000.

Logan, W. Va.—Land Improvement.—U. S. Buskirk, J. Cary Alderson, A. B. Shrewsbury, W. P. Neekamp and others have incorporated the Logan Realty Co. with \$10,000 capital stock.

Mable, W. Va.—Supply Company.—Curry & Bittner Supply Co. has been incorporated with \$10,000 capital stock by Christian Felty, John Curry, E. E. Bittner, John C. Curry and others.

Parkersburg, W. Va.—Sash, Door and Blind Factory.—A company is being organized by W. W. Watterson, Junius R. H. Radeker and associates with \$25,000 capital stock to establish plant to manufacture all sorts of frames for houses, stairs, porch columns, window sashes, etc. A three-story brick building has been secured and machinery will be installed at once; sufficient ground has also been purchased for lumber yards.

Princeton, W. Va.—Electric-light Plant.—Reported that the Deepwater Railway has secured franchise to build electric-light plant. H. Fernstrom, Norfolk, Va., is chief engineer.

Spencer, W. Va.—Oil and Gas Wells.—Adams Oil & Gas Co. has been incorporated with \$10,000 capital stock by John E. Fairfax, A. J. Knotts, J. H. Camp, W. W. Goff and E. W. McKown.

INDIAN TERRITORY.

Hugo, I. T.—Crescenting Plant and Depot.—Reported that the St. Louis & San Francisco Railroad is considering the establishment of a crescenting plant; also the erection of a three-story pressed brick depot. G. H. Schleyer, Fort Smith, Ark., is division superintendent.

Mounds, I. T.—Oil Wells.—Reported that the Shamrock Oil Co. has leased 160 acres of oil lands near Mounds for \$25,000.

OKLAHOMA TERRITORY.

Fort Smith (not a postoffice), O. T.—Townsite.—United Cities Traction Co., reported incorporated last week with \$100,000 capital stock, will develop 800 acres of land, establishing townsite of Fort Smith. The company also proposes building four miles of electric railway and will ask for connections with several steam roads; work to begin January 1. Very little material has been purchased. Ira L. Reeves, Reserve Building, Muskogee, I. T., is president; J. W. Underwood, secretary, and J. T. Nelson, treasurer, both of Fort Smith, Ark.

Hennessey, O. T.—Electric power Plant.—Hennessey Electric Light, Ice & Power Co., recently incorporated, has completed organization with Fred Ehler, president; H. Zuber, vice-president; E. B. Cockrell, secretary; J. W. Smith, treasurer, and Frank Murch, electrical engineer; capital stock \$15,000.

Oklahoma City, O. T.—Steam-heating and Cold-storage Plants.—Carl E. Porterfield of Kansas City, Mo., and associates will arrange at once to install steam-heating and cold-storage plant, for which franchise was recently granted. About \$296,000 will be invested.

Oklahoma City, O. T.—Vacuum House Cleaning.—Compressed Air Vacuum House Cleaning Co. has been incorporated with \$10,000 capital stock by W. D. Eastland, A. M. Eastland, F. J. Merrell, Arthur Wharton and Fred Brasted.

Oklahoma City, I. T.—Grading.—Frank L. Adams Co. have contract for grading portions of Laird avenue and 9th street.

Perry, O. T.—Telephone System.—Warren Valley Telephone Co. has been incorporated

with \$1000 capital stock by W. J. Burke and Fred Kukuk of Perry and G. D. Michael of Lucien, O. T.

BURNED.

Ambrose, Ga.—Dennis Vickers' cotton gin; loss \$5500.

Baltimore, Md.—Four-story brick warehouse at 224-226 West Camden street of board of trustees of the Samuel Ready School for Female Orphans; E. G. Perline, secretary, 18 East Lexington street.

Baton Rouge, La.—Standard Box Co.'s factory; loss \$80,000.

Belmont, Va.—J. H. Stubbs' flour mill.

Bolling Springs, S. C.—F. M. Lee's cotton gin and roller mill.

Buford, Ga.—R. H. Allen's warehouse.

Canton, Mo.—Canton Milling Co.'s flour mill; loss \$22,000.

Chinquapin, N. C.—G. B. D. Parker's cotton gin, sawmill, etc.

Ensign, Texas.—R. N. Matthews' cotton gin; loss \$4000.

Fairbanks, Fla.—John P. Lynch's sawmill; loss \$30,000.

Fergusons Wharf, Va.—W. P. Wilson's peanut warehouse; loss \$10,000.

Hattiesburg, Miss.—Lewis Lumber & Supply Co.'s planing mill; loss \$5000.

Jesup, Ga.—R. W. Madray's cotton gin.

Nashville, Tenn.—Building owned by John R. Rosenfield of Memphis, Tenn., and occupied by the Clarksville Produce & Commission Co.; loss on building \$6000.

Norfolk, Va.—Frederick Hotel at Planer's Point, owned by L. W. Codd; loss \$15,000.

Sharptown, Md.—Irving L. Owens' sawmill.

Sylvania, Ga.—Henry Reddick's cotton gin.

BUILDING NOTES.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Albemarle, N. C.—School Building.—Hook & Rogers, Charlotte, N. C., have completed plans for building to be erected at the Albemarle Normal and Collegiate Institute.

Ardmore, I. T.—Hotel.—W. F. Whittington is having plans prepared by J. W. White for additional story to hotel and other improvements to cost about \$20,000.

Ashland, Va.—Warehouse.—Morgan Shepherd of Richmond, Va., was made chairman of meeting held by the tobacco growers of Hanover and the business men of Ashland, Va., to arrange for the erection of tobacco warehouse to cost from \$7000 to \$10,000, and a special committee has been appointed to arrange the plans and organize company.

Atlanta, Ga.—Foundations.—James Knox Taylor, supervising architect, Treasury Department, Washington, D. C., will receive bids until January 10, 1907, for the construction of foundations for the United States postoffice and courthouse, in accordance with drawings and specifications, copies of which may be had at office of supervising architect or at the office of the custodian, Atlanta, Ga., at the discretion of the supervising architect.

Austin, Texas.—Bank and Office Building.—H. A. Wroe, vice-president American National Bank, has purchased site on which it is stated a bank and office building will be erected.

Baltimore, Md.—Warehouse.—The State Tobacco Warehouse Commission has decided to erect tobacco warehouse at Light, Charles and Conway streets; eight stories, 160x300 feet; reinforced concrete construction throughout; Baldwin & Pennington, architects, Professional Building, 330 North Charles street.

Baltimore, Md.—Dwellings.—Walter L. Westphal, builder, 1700 North Bond street, will erect 18 two-story brick dwellings on Curley near Baltimore street, to cost about \$18,000.

Baltimore, Md.—Fire Department Building. The municipal Board of Awards, City Hall, has awarded contract to James F. Farley, 207 North street, for the construction of fire department building at 43 and 45 South Carey street at his bid of \$16,869; two stories, 35x70 feet; brick with terra-cotta trimmings; structural iron and steel; metal ceilings; slag roof; electric wiring and fixtures; sanitary plumbing; steam-heating system; building will be constructed under supervision of Edward D. Preston, Inspector of Buildings, City Hall.

Baltimore, Md.—Dwellings.—Piny P. Day, builder, 2140 West Baltimore street, will erect 15 two-story brick dwellings on Mc-

Henry near Catherine street to cost about \$25,000; Jacob F. Gerwig, architect, Hoffman Building, 11 East Lexington street.

Baltimore, Md.—Store Building.—Thomas O'Neill, Charles and Lexington streets, will erect store building at 34 West Lexington street.

Baltimore, Md.—Warehouse.—Referring to warehouse to be erected on Light near Pratt street for Charles Vincenti, 415 South Hanover street, the following contractors are estimating on construction: James F. Farley, 207 North street; John Stack & Sons, 250 West Preston street, and R. H. Frazier & Sons, 220 St. Paul street; four stories; brick with stone trimmings; electric wiring and fixtures; sanitary plumbing; heating system; elevator; Charles E. Cassell & Son, architects, Law Building, 225 Courtland street.

Baltimore, Md.—College Dormitory.—Haskell & Barnes, architects, Wilson Building, 301 North Charles street, have prepared tentative plans for dormitory building to be erected at northwest corner Lombard and Greene streets for the University of Maryland, southwest corner Lombard and Greene streets.

Barboursville, Ky.—Hotel.—John A. Black is arranging to erect a three-story brick-and-stone hotel.

Bay City, Texas.—Business Building.—Howard Bros. have contract to erect building for M. Mergenthal & Young, for which J. E. Large prepared the plans; 70x75 feet; entirely fireproof; electric fixtures; cost \$5874. (Referred to December 6.)

Bristol, Tenn.—Office Building.—Interstate Building Co., recently incorporated with J. M. Barker, president, will erect a five-story-and-basement office building 78x70 feet; cost \$50,000.*

Charlotte, N. C.—Dwelling.—S. Wittowsky will erect a two-story brick building to cost \$5000.

Chester, W. Va.—Hotel.—T. Taggart, French Lick, Ind., states there is no truth in the report mentioned last week that he would erect a hotel and sanitarium at Mineral Springs, near Chester.

Clarksburg, Texas.—Office Building.—Dr. H. L. Pearson will consider suggestions from architects for a four-room office building, to contain a laboratory 15x16 feet, two operating-rooms and a room for heating building by steam, each to be 7x8 feet; structure to be one story and have steel or fancy ceiling.

Columbia, S. C.—Hotel.—Reported that an additional story will be built to the Hotel Jerome.

Cookeville, Tenn.—Clubhouse.—Monotony Breakers' Club will erect a brick clubhouse, and a committee has been appointed with D. L. Pincus, chairman, to contract for the erection of building.

Covington, Ky.—Store and Flat Building.—H. R. Riffe is having plans prepared by Schofield & Walker for proposed store and flat building.

Dallas, Texas.—School Building and Chapel. Plans are being prepared for school building and chapel to be erected at Buckner Orphans' Home at a cost of \$25,000. Address The Superintendent.

Dallas, Texas.—Courthouse and Postoffice.—James Knox Taylor, supervising architect, Treasury Department, Washington, D. C., will receive bids until January 15, 1907, for the construction of an extension, including heating apparatus, electric wiring and conduits, to the United States courthouse, postoffice, etc., in accordance with drawings and specifications, copies of which may be had at office of supervising architect or at the office of the custodian at Dallas, Texas, at the discretion of the supervising architect.

Decatur, Ala.—Hotel.—G. M. J. Thomas, it is reported, has contracted for the erection of a three-story brick hotel.

Douglas, Ga.—Store and Office Building.—J. B. Elliott has contract to erect four-story brick-and-stone store and office building for C. M. Sweat, F. L. Sweat and B. H. Tanner; to have plate-glass front and be equipped with elevators.

Durham, N. C.—Church.—Arrangements are being completed for the erection of proposed edifice for Main Street Methodist Church, T. A. Smoot, pastor. George W. Kramer of New York, N. Y., is architect.

Fishersville, Ky.—Building.—Reported that Clarence C. Hilt of Louisville, Ky., will erect a \$100,000 building.

Fort Worth, Texas.—Apartment-house.—William Bryce has contract to erect three-story and basement brick apartment-house for M. R. Sanguinet; cost \$40,000.

Franklin, La.—Hotel.—A stock company is being organized by Dr. Frere and associates to erect hotel to cost about \$50,000.

Frederick, Md.—Bank Building.—Bids will be received until December 28 by F. E. & H. R. Davis, 220 St. Paul street, Baltimore, Md., for building to be erected by the Fredericktown Savings Institution; 35x80 feet; granite, brick and steel; fireproof construction; steam heat; electric and gas fixtures. T. B. Standfield & Sons, 100 Clay street; McIver & Piel, Builders' Exchange Building; Brady & Watters, 532 St. Paul street; John Hughes, Jr., 104 East Saratoga street; Engineering Contracting Co., 309 North Calvert street; D. M. Andrews Company, Vickers Building, all of Baltimore, Md., are estimating on the construction.

Frederick, Md.—Telephone Exchange.—Engineering Contracting Co., 309 North Calvert street, Baltimore, Md., is lowest bidder and will probably be awarded contract to erect telephone exchange for the Chesapeake & Potomac Telephone Co., mentioned November 15. Parker & Thomas, Union Trust Building, Baltimore, Md., prepared the plans.

Gadsden, Ala.—Business Building.—H. M. Johnson has contract to erect white pressed-brick business building for E. B. Vaughan, mentioned November 29.

Gassaway, W. Va.—Church.—Reported that an architect has been engaged to prepare plans for a \$25,000 Presbyterian church to be erected by Henry G. Davis of Elkins, W. Va.

Greensboro, N. C.—School Building.—City will vote February 19 on the issuance of \$20,000 additional bonds for improvement of public-school facilities. Address The Mayor.

Greensboro, N. C.—Masonic Temple.—Greensboro and Corinthian Lodge of Masons will form the Masonic Temple Association for the erection of a \$50,000 building. F. P. Holgood, Jr., C. N. Vansantory, A. B. High, J. C. Pierce and L. W. Hughes are mentioned as incorporators.

Hagerstown, Md.—Apartment-house.—Jos. C. Roulette has purchased site on which to erect a five-story brick apartment-house.

Hamburg, Ark.—Jail Building.—E. A. Scott and T. E. Mears have been appointed building commissioners to consider plans, etc., for the erection of jail building for Ashley county, for which a motion has been made to appropriate \$30,000.

Hopkinsville, Ky.—Church.—Christian congregation will expend \$15,000 in improvements to edifice, doubling the capacity of auditorium. H. D. Smith is pastor.

Hot Springs, Ark.—Church.—W. E. Kier has contract to erect \$25,000 edifice for the Presbyterian congregation.

Howe, I. T.—School Building.—The building to be erected by the town, for which bonds were reported last week as voted, will be of brick and stone; ordinary construction; W. N. Estes, Recorder.

Itabena, Miss.—School Building.—Contract will be let in about three weeks for school building mentioned November 29 to be erected; 100x50 feet; brick; ordinary construction; equipped with steam heat and electric fixtures; cost \$17,000. R. H. Hunt, Chattanooga, Tenn., prepared the plans; M. M. Phillips, secretary building committee.*

Jacksonville, Fla.—School Building.—Bids will be received by the Board of Public Instruction of Duval county, at the office of the County Superintendent of Schools, Room 7, Courthouse, Jacksonville, Fla., until December 26, for the erection of a high-school building, according to plans and specifications which can be obtained from W. B. Camp, architect, Livingston Building; usual rights reserved. D. U. Fletcher is chairman, and H. H. Palmer, secretary.

Kansas City, Mo.—Apartment-houses.—J. A. Rose will erect two apartment-houses, one to contain 120 rooms and cost \$100,000, and one to contain 75 rooms and cost \$60,000.

Kansas City, Mo.—Office Building.—Reported that T. G. Bonfills of Denver, Col., will erect a 20-story fireproof building to cost between \$500,000 and \$600,000.

Knoxville, Tenn.—Apartment-house.—The apartment-house reported December 13 to be erected by Henry L. Underwood will be 105x50 feet; steam heat; gas and electric fixtures; cost \$20,000; R. Buffalow, architect and contractor.

Knoxville, Tenn.—Apartment-house.—R. Buffalow has contract to erect apartment-house for T. M. Michaels, referred to December 13; three stories, 50x136 feet; steam heat; electric and gas fixtures.

Lexington, Ky.—Hotel.—Contract reported November 15 to be awarded December 1 for erection of addition to Phoenix Hotel will not be let until January 1; building to be eight stories, 85x240 feet; steam heat; electric fixtures and elevator; cost about \$300,000; Richards, McCarty & Bulford, Columbus, Ohio, architects. Charles Seelbach is manager.

Lexington, Ky.—Hospital.—Combs Lumber Co. has contract to erect four-story and basement fireproof addition to St. Joseph's Hospital after plans by H. L. Rowe.

Louisville, Ky.—Library Building.—Brinton B. Davis is preparing plans for library building to be erected by the Louisville Free Public Library at Parkland.

Louisville, Ky.—Apartment-house.—Morris Cohen is having plans prepared for the erection of a three-story brick and stone apartment-house on site reported November 22 as purchased.

Louisville, Ky.—Dwelling.—Contract will be let December 20 for residence to be erected by M. W. Burd, 631 West Main street, after plans by Arthur Smith, Norton Building; to contain nine rooms, be constructed of rough stone and shingles, equipped with hot-water heating plant, electric fixtures; cost \$6000.

Louisville, Ky.—Office Building.—D. X. Murphy & Bro. are preparing plans for three-story office building 48x140 feet, to be erected by the Louisville Gas Co.; fireproof construction; steam heat; gas and electric fixtures.

Macon, Ga.—Store Building.—Mrs. A. T. Coleman will rebuild structure occupied by Burden, Smith & Co., recently burned.

Mammoth Springs, Ark.—School Building.—T. A. Sharp, secretary School Board, will receive bids until January 7, 1907, for the erection of school building. Plans and specifications on file at Dunbar & Lytle's store; usual rights reserved.

Marlin, Texas.—Hotel.—Bethesda Bathhouse Co. has let contract for the erection of a three-story brick hotel.

Marshall, Mo.—School Building.—J. H. Felt & Co., Kansas City, Mo., are preparing plans for school building reported October 25 to be erected; cost \$40,000. Size and character of building has not been determined.

Midway, Texas.—School Building.—City will vote January 10, 1907, on the issuance of bonds for the erection of school building. Address The Mayor.

Milledgeville, Ga.—Dormitory.—Board of trustees of the Girls' Normal and Industrial School has adopted plans by J. W. Golucke & Co. for dormitory to cost \$27,500. (Referred to August 23.)

Memphis, Tenn.—Building.—A permit has been secured for the four-story building to be erected by the Commercial-Appel Publishing Co., for which the Selden-Breck Construction Co. of St. Louis, Mo., has contract.

Milledgeville, Ga.—City Hall.—City will issue \$25,000 of bonds to erect city hall. Address The Mayor.

Mobile, Ala.—Pier.—Charles Ollinger has contract to construct 1500-foot pier for the Mobile Yacht Club.

Monroe, N. C.—Depot.—Reported that the Seaboard Air Line Railway is having plans prepared for a \$60,000 freight station and transfer plant. W. L. Seddon, Portsmouth, Va., is chief engineer.

Mt. Sterling, Ky.—Building.—I. T. Tabb wants estimates on the construction of a one-story building 60x100 feet; fireproof or mill construction. Electric fixtures will be installed.

New Orleans, La.—Store Building.—Leon Lehman Grocery Co. has purchased site, 200x100 to 120 feet, on which it is proposed to erect a two-story brick store building.

New Orleans, La.—Courthouse.—Court-house Commission, Bernard McCluskey, president, 1201 Ilibernia Bank Building, will open bids February 4, 1907, for the erection of a four-story fireproof courthouse, 250x290 feet; pile foundation; exterior of stone and terra-cotta; electric elevator and wiring; heating system. Proposals are invited for both steel and reinforced-concrete frame and floor construction. Plans and specifications may be seen at office of the commission, 1201 Ilibernia Bank Building, and copies may be secured at the offices of Frederick W. Brown, A. Ten Eyck Brown and P. Thornton Marye, associated architects, Equitable Building, Atlanta, Ga., upon request, accompanied by a deposit of \$25, of which \$15 will be refunded on return of plans and specifications. Certified check in the sum of 2 per cent. of amount of bid must accompany each proposal; usual rights reserved. For further information address the architects at Atlanta, Ga., or Arthur McGuirk, secretary Courthouse Commission, Ilibernia Bank Building, New Orleans, La.

Nixon, Texas.—Bank Building.—Nixon State Bank has begun the erection of brick building.

Nixon, Texas.—Store Building.—Nixon Mercantile Co., organized with \$25,000 capital stock, will erect a concrete building.

Norfolk, Va.—Apartment-house.—Meyer Kotten, Suite 16-17 Essex Building, wants plans and specifications for a four-story brick or

veneered apartment-house, 75x125 feet, with six apartments on each floor and four rooms and bath in each apartment, to cost not more than \$15,000, including heating apparatus. (Previously mentioned.)

Norfolk, Va.—Business Building.—Neff & Thompson are preparing plans for building to be erected by the Monticello Arcade Co. The structure will be three stories, 110x210 feet, of fireproof construction, and bisected by an arcade. Betts-Hayden Construction Co. has contract for the piling.

Norfolk, Va.—School Building.—A committee has been appointed composed of President of School Board W. M. Jones, Dr. T. L. Royster and Superintendent R. A. Doble to secure competitive plans for a high-school building to be centrally located.

Nortonville, Ky.—Bank Building.—Contract will be let at once for building to be erected by the First State Bank of Nortonville, Ky.; two stories, 25x160 feet; ordinary construction; steam heat; cost about \$4000.

Oklahoma City, O. F.—Church.—Plans by C. Bulger of Galveston and Dallas, Texas, have been adopted for proposed edifice for St. Luke's Methodist Church; 97x152 feet; cost \$65,000 to \$75,000.

Orange, Texas.—Depot.—H. F. Jones, Houston, Texas, has prepared plans for depot to be erected by the Texas & New Orleans Railroad; one story, 25x88 feet; ordinary brick construction; cost \$10,000.

Pensacola, Fla.—Police Station and Jail.—Board of Bond Trustees, I. Hilton Green, chairman, will shortly ask bids on \$18,000 police station and jail mentioned November 1 to be erected. Ausfeld & Blount prepared the plans.

Pensacola, Fla.—Hotel.—T. A. Jennings and W. W. Varn have purchased site on which to erect hotel.

Perry, Fla.—Courthouse.—F. M. Dobson, Montgomery, Ala., has contract to build courthouse for Taylor county after plans by Benjamin B. Smith of Montgomery, Ala.; two stories, 60x106 feet; brick and stone; cost \$54,000.

Pine Beach, Va.—Hotel.—Breese & Mitchell, Norfolk, Va., are preparing plans for the Powhatan Hotel; to have 150 rooms and cost \$30,000.

Pine Bluff, Ark.—Business Building.—Contract will be let about December 22 for building reported last week to be erected by F. K. Scull, P. O. Box 373; two stories, 40x154 feet; brick; ordinary construction; electric and gas fixtures; iron stairway on outside of building covered by an awning; cement floor; three I beams to span 40-foot front. R. W. Lane prepared the plans.

Raleigh, N. C.—Telephone Exchange.—Southern Bell Telephone & Telegraph Co. is reported as considering the erection of a \$25,000 telephone exchange; main office, Atlanta, Ga.

Richmond, Va.—Church.—First Baptist Church is reported to erect a \$12,000 addition to edifice. Address The Pastor.

Richmond, Va.—Alms-house.—A. C. Bedford has contract at \$52,668 for the construction of alms-house after revised plans by Charles K. Bryant. (Previously referred to.)

Richmond, Va.—Church.—First Church of Christ, Scientist, has purchased site on which to erect a \$50,000 structure. John Bernard, Mrs. Helen L. Younger and W. B. Cheek have been appointed trustees.

Roanoke, Va.—Depot, etc.—West Richardson of Newport News, Va., has contract to build freight depot and lay foundation for turntable for the Norfolk & Western Railway; cost \$25,000.

Roanoke, Va.—Building.—H. H. Huggins is preparing plans for building to be erected by J. S. Perry; two stories, 50x80 feet; gray pressed-brick front; ordinary construction; electric or gas fixtures; hand or electric elevators; cost \$5000. Construction of building will not begin before May 1.

Sapulpa, I. T.—Church.—No definite arrangements have been made for the erection of edifice for Methodist Episcopal Church, South, mentioned December 13, but it is contemplated to build structure to cost \$8000 or \$10,000. J. H. Denny is pastor.

Selma, Ala.—Telephone Exchange.—Southern Bell Telephone Co. (main office, Atlanta, Ga.) is arranging for the erection of a four-story brick and stone building.

Sewell's Point, Va.—Exposition Building.—C. B. Moore, Norfolk, Va., has contract at \$5000 for the erection of building on the Jamestown Exposition grounds for the Daughters of the Confederacy.

Sewell's Point, Va.—Exposition Building.—Site has been secured on the Jamestown Exposition grounds for the erection of a building by the Baptists of America. Dr. Calvin

S. Blackwell of Norfolk, Va., can probably give information.

Sewell's Point, Va.—Exposition Building.—All bids for the erection of West Virginia Building at the Jamestown Exposition will be received by Virgil A. Lewis, secretary, of the West Virginia Commission, in care of Judge George W. Atkinson, Court of Claims, Washington, D. C. Bids to be opened December 22. (Referred to December 13.)

Sewell's Point, Va.—Exposition Building.—Frank J. Ferrell of New York, N. Y., has contract at \$23,000 for the erection of building for the Negro Development & Exposition Co., referred to November 22. N. C. Dadd will superintend the construction. A. Sidney Pittman, 494 Louisiana avenue, Washington, D. C., prepared the plans.

Sewell's Point, Va.—Building.—Jamestown Construction and Amusement Corporation will erect a fireproof building 150x250 feet, equipping with electric lights and costing \$18,000, for amusement purposes; T. D. Lipes, architect. E. L. Dashiell, 339 High street, Portsmouth, Va., is secretary-treasurer of the corporation.

Sewell's Point, Va.—Exhibit Building.—Reported that the J. A. Fay & Eagan Company, Cincinnati, Ohio, will erect a \$65,000 building on the Jamestown Exposition grounds.

Shubuta, Miss.—School Building.—A Meridian (Miss.) architect has been commissioned to prepare plans for \$10,000 brick school building, replacing structure recently burned. D. W. Heidelberg is president of School Board. (Referred to November 29.)

Slidell, La.—School Building.—Town will issue \$10,000 of bonds for school purposes. Address Town Clerk.

St. Augustine, Fla.—Postoffice Building.—S. C. Edminster has contract at \$4617 for making improvements to postoffice building.

St. Louis, Mo.—Dwelling.—Elizabeth S. Lauxman has purchased site on which to erect residence.

St. Louis, Mo.—Dwelling.—F. W. Krueger will erect residence on site recently purchased.

St. Louis, Mo.—Dwelling.—Rabbi M. Spitz has had plans prepared by John L. Wees, 410 Commercial Building, for the erection of a two-story residence 29x45 feet; ordinary construction.

St. Louis, Mo.—Dwelling.—Geo. L. Gerver will erect residence 24x48 feet; mill construction; hot-water heating plant; gas and electric fixtures; electric bells, etc.

St. Louis, Mo.—Dwelling.—Henry Schmal has purchased site on which to erect a residence.

St. Louis, Mo.—Apartment-house.—William H. Hollman has purchased site on which to erect apartment-house.

St. Louis, Mo.—Apartment-house.—Charles P. Garavelli will arrange to erect apartment building on site recently purchased.

Tampa, Fla.—Hotel.—Arrangements have been completed for the erection of proposed DeSoto Hotel, W. L. Parker, manager; four stories, 210x210 feet; brick; fireproof construction. An electric-light plant and steam laundry will be included in the equipment. J. A. Wood prepared the plans and Elmore Webb will probably superintend the construction.

Tulsa, I. T.—Bank Building.—A new bank organized by J. G. McGannan of Seneca, Mo., and associates is reported to erect building costing \$150,000.

Tulsa, I. T.—Hotel.—Robinson Hotel Co. will let contract at once for the erection of additional story and other improvements to three-story hotel building; brick; fireproof; gas-heating plant; gas and electric fixtures; electric elevators.

Washington, D. C.—Apartment-houses.—Harry Wardman, builder, 717 14th street N. W., will erect three apartment-houses at 1757-1761 Columbia road N. W.; three stories, 40x71 feet; brick with stone trimmings; structural iron and steel; sanitary plumbing; steam-heating system; cost about \$80,000; A. H. Beers, architect, 717 14th street N. W.

Washington, D. C.—Store Buildings.—Joseph J. Moebis, builder, 1416 F street N. W., will erect five one-story brick store buildings at 3222-3230 11th street N. W., to cost \$10,000.

Washington, D. C.—Dwellings.—Middaugh & Shannon, builders, 2405 1st street N. W., will erect 24 two-and-one-half-story brick and frame dwellings with hot-air heating systems at 434-444 Park road and 435-469 Luray place, to cost about \$75,000; Joseph Bohn, Jr., architect, Stewart Building, 6th and D streets N. W.

Washington, D. C.—Store Building.—Sarah Brady has awarded contract to S. C. Yates,

317 Harrison street, Anacostia, D. C., for the construction of two-story brick store building with hot-water heating system at 157 Harrison street, Anacostia, D. C.

Washington, D. C.—Dwellings.—Pumphrey & Palmer, builders, 414 7th street S. W., will erect two two-story brick dwellings at 1833 and 1835 4th street N. W., to cost about \$7000; E. O. Volland, architect, 418 L street N. W.

Washington, D. C.—Store Building.—Cyrus B. Rees, 1525 14th street N. W., has purchased three-story store building at 1322 14th street N. W. and will remodel it.

Weston, Mo.—Dwelling.—John Holled has contract to erect nine-room residence for Phil Doppler after plans by Wm. P. Feth, Leavenworth, Kan.; ordinary construction; furnace heat; natural gas; cost \$6000.

Whitesburg, Ky.—Bank Building.—Citizens' Bank of Whitesburg will erect a \$6000 building.

RAILROAD CONSTRUCTION.

Railways.

Abbeville, Ga.—The Abbeville & Northwestern Railway Co. has been chartered to build its proposed line from Abbeville to Fort Valley, Ga., 50 miles; capital \$100,000. J. L. Bankston, G. B. Monroe, Hal Lawson and others, all of Abbeville, are the incorporators.

Alken, S. C.—The Manufacturers' Record is officially informed that an agent is in the field to secure rights of way for the extension of the Augusta-Alken Railway from Alken to Columbia, S. C. James U. Jackson is vice-president and general manager at Augusta, Ga.

Americus, Ga.—G. D. Allen is reported to be rapidly completing the survey for the Americus & Hawkinsville Railroad which will run via Vienna.

Asheville, N. C.—Reported that the Overlook Park & Loop Line Railway has been purchased by Charles E. Van Bibber, representing Northern capitalists, and that a railroad will be built from Rutherfordton via Asheville to a point in the eastern part of Tennessee, connecting with the Tennessee & North Carolina Railroad. John P. Arthur, superintendent of the Park & Loop Line, is quoted as saying that a trolley line only will be built to the park.

Atlanta, Ga.—The Central of Georgia Railway is building freight and construction yards near Fort McPherson. The work will cost over \$500,000. Grading is now under way and the yards will cover altogether 400 acres. C. K. Lawrence is chief engineer at Savannah, Ga.

Brevard, N. C.—Reported that the Southern Railway will build a line from Dillsboro or Sylva to East Lenoir and Lake Toxaway for a connection. W. H. Wells is engineer of construction at Washington, D. C. Later: An officer informs the Manufacturers' Record that surveys are now being made between Sylva and East Lenoir, but it is not yet decided to build it.

Brownsville, Texas.—Col. Uriah Lott is quoted as saying that all the surveys for the proposed Brownsville, Hidalgo & Northern Railway have been completed, and that the line has plenty of financial backing, and that actual construction will begin in the spring. E. B. Gore is chief engineer at Brownsville.

Brunswick, Md.—Charter has been prepared for the Brunswick & Middletown Electric Railroad Co. to build a line northward from Brunswick to Middletown, Md., 10 miles, via Pettersville, Burkittsville and Broad Run. The promoters are also interested in the Brunswick & Purcellville Railroad Co., which proposes to build a line between the two points named, 16 miles, Purcellville being in Virginia. The incorporators of the Brunswick & Middletown Railroad are William Schnauffer, president of the Brunswick Savings Bank; Edward C. Shafer, Outerbridge Horsey, Alonzo P. Spritzer, Frank G. House, Levin West, Charles M. Huffer, Samuel Claggett, Charles J. House, Joseph D. Abalt, Milford F. Cook and Dr. Arlington G. Horne. A late report says that the company has filed its certificate of incorporation with \$80,000 capital.

Carrizo Springs, Texas.—The Nueces Valley Railroad Co. will, it is reported, soon file its charter to build a proposed line about 100 miles long from Artesia to Carrizo Springs, 45 miles, and thence to Spofford. J. L. Donnelly of Carrizo Springs is said to be interested, and Philadelphia capital is reported back of the plan.

Chattanooga, O. T.—The Manufacturers' Record is officially informed that the Rock Island has made a survey from Chattanooga south to the Red river, but no farther. The line is 21 miles long. It passes through no towns, there is no intention to

extend it to Wichita Falls, and it is not decided whether it will be built or not.

Columbia, S. C.—An officer of the Seaboard Air Line informs the Manufacturers' Record that the question of building a new yard at Cayce, S. C., opposite Columbia, has not been definitely decided.

Columbia, Ga.—The South Carolina Public Service Corporation proposes, it is said, to build a total of 500 miles of line connecting the following points: Orangeburg, Sandy Run, Bakersville, New Brookland, Columbia, Winnsboro, Chester and Rock Hill, S. C., and Charlotte, N. C.; also a loop from Columbia via Brookland to Lexington, Rockywell, Etheridge, Fox, Mt. Willing, Emery, Saluda Courthouse, Greenwood, Abbeville, Anderson, Greenville, Spartanburg, Union and Chester. A branch from Saluda Courthouse to Newberry and Laurens is included. C. R. Van Etten and others are the incorporators, as heretofore stated, and surveys are now in progress.

Corpus Christi, Texas.—The Manufacturers' Record is officially informed that the St. Louis, Brownsville & Mexico Railway Co. has entirely completed its line, and it has no main line construction in view at present. The bonds lately registered are for line completed in 1905.

Dallas, Texas.—W. A. McDonald, secretary of the Texas Northern Railroad, Wilson Building, is reported as saying that the company is ready to let contract between Dallas and Egan, Texas, 40 miles. Surveys have been made and capital secured. B. P. McDonald is president and Hans Heiland is chief engineer.

Darien, Ga.—Reported that the Georgia Coast & Piedmont Railway is surveying for the proposed extension from Darien to Brunswick, Ga., 18 miles. H. D. Emerson is vice-president and general manager.

De Quincy, La.—Contractors on the Colorado Southern, New Orleans & Pacific Railway are reported as saying that grading is being rapidly pushed both east and west of the Atchafalaya river, and that tracklaying west of the river is making good progress.

El Paso, Texas.—Officers of the El Paso & Southwestern Railway are reported as saying that an extension will be built to Montezuma, in Sonora, Mexico. J. L. Campbell is engineer maintenance of way at El Paso.

Fayetteville, Ark.—The Boston-Ozark Traction Co. has been organized to build an interurban electric railway from Fayetteville to Harrison, Ark., and Carthage, Mo. Among those interested are J. W. Baxter, J. C. Bonnell and J. T. Evans.

Fernandina, Fla.—A letter to the Manufacturers' Record says that the Fernandina Dock & Realty Co. has sold water-front property to the Florida Railway Co., which will extend its road to Fernandina and build the terminals. Frank Drew is president of the railway company at Live Oak, Fla.

Fort Lawn, S. C.—The Southern Power Co. is reported to be extending its railroad from Fort Lawn to Great Falls and two miles farther to the proposed new station on Rock creek.

Fort Smith, Ark.—Ira L. Reeves, president of the United Cities Traction Co., Reeves Building, Muskogee, I. T., writes the Manufacturers' Record that the company will build four miles of standard-gauge electric railway at present; work to begin January 1; capital \$100,000, and the other officers are: H. G. Baker, general solicitor, Muskogee, I. T.; J. W. Underwood, secretary, and J. T. Nelson, treasurer, Fort Smith, Ark.

Fredericksburg, Texas.—The San Antonio & Aransas Pass Railway Co. is reported to be investigating the proposition to build an extension to Fredericksburg. W. M. Hobbs is first vice-president and general manager at San Antonio.

Front Royal, Va.—M. F. D. Scanlan of Philadelphia is reported as saying that Mr. Franklin, the engineer, has plotted the route for the proposed Front Royal, Richmond & Tidewater Railway, and that maps are now to be prepared. Hugh E. Naylor, secretary of the Board of Trade at Front Royal, and others are interested.

Glen Mary, Tenn.—The Glen Mary Railroad, recently chartered with \$50,000 capital stock, proposes to build 35 miles of line from Glen Mary to Oliver Springs, Tenn. G. N. Chandler of Harriman, Tenn., and others are interested. It is said that the survey has been made by engineers of the Queen & Crescent Route.

Gulfport, Miss.—Survey reported complete for the proposed Gulfport & Northwestern Railroad from Gulfport to Poplarville, Miss., 46 miles, and construction to begin immediately after January 1. This is the line promoted by the Edward Hines Lumber Co. of Chicago, and Congressman W. C. Lorimer, also of Chicago, is said to be interested.

Henderson, Ky.—Reported that a charter has been prepared for an electric railway with \$100,000 capital to connect Henderson, Ky., Uniontown, Ky., and Evansville, Ind. T. Bethell of Henderson, Ky., is among those interested.

Hattiesburg, Miss.—Reported that Will A. Aaron of Hattiesburg, secretary of the Birmingham & Mississippi Southern Railroad Co., and D. C. Dunlap of Chicago, consulting engineer, have made a preliminary survey from Baton Rouge to Hattiesburg and will continue from Hattiesburg to Birmingham, Ala. They will also go over the branch route from Waynesboro to Scranton, Miss. The line will touch Franklinton, La.; Richburg, Miss.; Butler, Demopolis and Greensboro, Ala.

High Point, N. C.—The city of High Point has voted \$75,000 for bonds of the Glen Anna & Pee Dee Railroad. Dee Allen and others are interested. Mr. Allen is reported as saying that 111 miles of line are to be built, and work will be pushed, beginning about January 1. Connection will be made with the Seaboard at either Wadesboro or Rockingham, N. C., with probably an extension of five miles to Hamlet, N. C. The survey toward Winston-Salem, N. C., has already been made to connect with the Norfolk & Western.

Jackson, Ky.—Right of way is being secured for a narrow-gauge railroad from the mouth of Quicksand creek, three miles above Jackson, to a point near the head of the south fork of Quicksand, 11 miles, the Stevenson Lumber Co. of Parkersburg, W. Va., being interested. Oscar Sears of Parkersburg represents the company at Jackson.

Jackson, Miss.—An officer of the New Orleans Great Northern Railroad, referring to a recent report that contract had been let for such a line, advises the Manufacturers' Record that as far as he knows the company does not contemplate building an extension from Jackson to Edinburg, Miss.

Jackson, Miss.—Fred W. Herrick of Milwaukee, Wis., president of the Pearl River Valley Railroad Co., which proposes to build a line from Jackson to Columbus, Miss., is reported to be conferring at Jackson with relation to building the proposed line.

Kingsport, Tenn.—The South & Western Railroad Co. has filed the necessary papers to absorb the Kingsport Southern Railway Co., recently incorporated by officers of the former to build line in Tennessee. M. J. Caples is general manager of the South & Western at Bristol, Tenn.

Logan, W. Va.—The Chesapeake & Ohio Railway, it is reported, will shortly let a contract to extend the Guyan Valley branch from Logan to Gilbert, W. Va., besides constructing other extensions. H. Pierce is engineer of construction at Richmond, Va.

Macon, Ga.—An official of the Central of Georgia Railway informs the Manufacturers' Record that no definite decision has been reached upon the question of double-tracking between Macon and Atlanta.

Macon, Ga.—The Interurban Construction Co. and the Macon & Albany Securities Co. have been organized to build the proposed electric railways from Atlanta to Macon and Albany, Ga. The officers of the construction company are W. Jordan Massee of Macon, president; Joseph S. Davis of Albany, vice-president; John T. Moore of Macon, secretary and treasurer, and Stuart Davis of Macon, assistant secretary and treasurer. J. J. Gallard of Macon is chief engineer and Frank P. Haskell is assistant engineer. The officers of the securities company are as follows: Nicholas J. Cruger of Albany, president; Joseph S. Davis of Albany, vice-president; W. J. Massee of Macon, secretary and treasurer, and Stuart Davis, assistant secretary and treasurer; M. Felton Hatcher, general counsel.

Mena, Ark.—Reported that the Kansas City Southern Railroad Co. has authorized the purchase of land to enlarge the present yards at Mena. A. F. Rust is chief engineer at Kansas City, Mo.

Miami, Fla.—W. W. Prout, president of the Miami Road of Trade, has, it is reported, arranged for capital to build a proposed railroad from Miami through the Everglades and a direct air line to the northern part of Florida, connecting with trunk lines.

Mineral Wells, Texas.—Official: The Texas & Pacific Railway intends to extend the Weatherford, Mineral Wells & Northwestern Railway, probably 25 miles, in a northwesterly direction. B. S. Wathen is chief engineer at Dallas, Texas.

Mobile, Ala.—Reported that T. W. Nicol of Mobile has a contract to build 45 miles of logging road through the Blodgett timber lands in Southern Mississippi.

Murfreesboro, Tenn.—Thomas O. Weaver of Nashville and others are reported to be promoting plans to build an interurban electric railway connecting Nashville, Shelbyville, Murfreesboro and Huntsville.

Nashville, Ark.—The Memphis, Paris & Gulf Railway is reported to have completed nine miles of grade out of Nashville and tracklaying is to begin within a few weeks. G. W. Dodson is general superintendent.

New Orleans, La.—The Louisiana Railway & Navigation Co. has operated the first through freight train over its line from Shreveport to New Orleans, and passenger trains will not be run until after January 1.

New Orleans, La.—J. T. Harahan, president of the Illinois Central Railroad, is quoted as saying that the construction of a second track on the Yazoo & Mississippi Valley Line from New Orleans to Baton Rouge is under consideration. A. S. Baldwin is chief engineer at Chicago, Ill.

Natchez, Miss.—The Illinois Central Railroad, it is reported, will build the proposed line from Natchez to Woodville, Miss., 38 miles, as a part of the Yazoo & Mississippi Valley Railroad. Survey has been made for more than a year. A. S. Baldwin is chief engineer at Chicago.

Nocona, Texas.—Concerning the press reports that the Missouri, Kansas & Texas Railway contemplates building a line from Nocona to Paul's Valley, I. T., an officer of the company informs the Manufacturers' Record that he knows nothing officially concerning such a line, the report in question being the first he has heard.

Paris, Ark.—Col. C. C. Godman of Dardanelle, Ark., is reported to be conferring with business men of Paris toward building a line from Paris to Dardanelle. Colonel Godman is interested in the Dardanelle, Ola & Southern Railroad, of which John McCarthy is engineer.

Pensacola, Fla.—The first electric car has been operated over the line from Pensacola to Port Barancas, nine miles, which has been converted from a steam road by Stone & Webster.

Pittsboro, N. C.—William Moncure of Raleigh has been making a survey for the Durham & Charlotte Railroad Co. from Pittsboro to a connection with the Durham & South Carolina Railroad.

Raleigh, N. C.—The Raleigh & Durham Passenger & Power Co. has had the time extended from December 21 to March 3 next for beginning work on its proposed line between Raleigh and Durham, about 25 miles. T. S. Fuller and others are interested.

Romney, W. Va.—John J. Cornwell, general attorney of the Hampshire Southern Railway, writes the Manufacturers' Record that the company has been financed and that the line will probably be constructed during 1907. It is to be 35 miles long, from Romney via Moorefield to Petersburg, W. Va., connecting at Romney with the South Branch Railway of the Baltimore & Ohio. Mr. J. Sloan Kuykendall is securing rights of way, and Mr. A. Spates Brady of Fairmont, W. Va., is engineer. A press report says that contracts will probably be let in January and that W. B. Cornwell of Fairmont is president.

Sabinal, Texas.—Milton Wolf of Chicago, president of the United Kaolin Properties Co., is reported as making an investigation for the proposed railway from Sabinal to Leakey, Texas, about 50 miles. He is quoted as saying that actual construction will soon begin.

Savannah, Ga.—Edward M. Rice of New York, one of the incorporators, is reported to be making a preliminary survey for the proposed Savannah, Augusta & Northern Railroad, which will extend from Savannah via Statesboro, Louisville and Athens to Rossville, Ga., and thence to Chattanooga, Tenn.

Savannah, Ga.—President George M. Brinson of the Brinson Railway, Stillmore, Ga., has applied to the city of Savannah for terminal facilities. Mr. Brinson says that construction toward Savannah is now under way, and it is also intended to build north-west to Athens, Ga., 180 or 190 miles. Line is standard gauge, with minimum grade of 1 per cent, and rails weighing 60 pounds to the yard.

Shelbyville, Ky.—The Louisville & Eastern Railroad Co. has, it is reported, let a contract to W. L. Love of Indianapolis, Ind., to build 23 miles of line from Beechwood, on the Pee Dee Valley line, 8 miles from Louisville, to Shelbyville. The extension from Beards to Lagrange is being rapidly finished. Percival Moore is general manager at Louisville, Ky.

Siloam Springs, Ark.—A. C. Titus is reported to be making a horseback survey for

the proposed Arkansas, Oklahoma & Northwestern Railroad, which will connect Fayetteville and Siloam Springs, Ark., with Caney, Kan.

Springfield, Mo.—Reported that Thomas P. McDonough & Co., engineers and general contractors, Tacoma Building, Chicago, have financed the proposed Kansas City, Nevada & Springfield Electric Railway.

Teague, Texas.—The Trinity & Brazos Valley Railway Co. will, it is reported, shortly begin work for a line from Teague via Athens, Quitman, Sulphur Springs and Cooper to Paris, Texas, connecting there with the St. Louis & San Francisco Railroad. Survey has been made. P. G. Burns is chief engineer at Mexico, Texas.

Towson, Md.—The United Railways of Baltimore is making surveys for an extension from Towson to Lutherville. W. A. House is general manager at Baltimore.

Union, W. Va.—Reported that Malcolm W. Cross of Allentown, Pa., and associates will build a railroad to develop ore and timber lands in Monroe county, lately purchased from George R. Dabney of Middlesboro, Ky., and F. K. Winkle and William Mundine of Minnesota.

Vicksburg, Miss.—John C. Shaffer of Chicago, Ill., is reported as saying that he hopes to extend the electric railway of Vicksburg to Yazoo City and Greenfield. G. P. Bullis, general manager of the Vicksburg Railway & Light Co., may be able to give information.

Wasioto, Ky.—The Louisville & Nashville Railroad, it is reported, is pushing construction on the Chenoa branch from Wasioto, and 15 miles will be built.

Waynesville, Mo.—J. J. Burns, president of the Ozark Transit Co., 527 Victoria Building, St. Louis, Mo., writes the Manufacturers' Record that the company is chartered for 100 miles of line and is doing its own construction, but it is intended to build even more road than this. No contracts will be let for the track.

Wellsburg, W. Va.—The Wellsburg & Bethany Electric Railway, to be seven miles long, is reported to have finished five miles of grade and to have laid three miles of track.

Westbrook, Texas.—M. S. Palmer of Crowell, La., is reported to be surveying for a railroad from Westbrook to Gale, 42 miles, and a bonus has been subscribed at Westbrook.

Wheeling, W. Va.—The East Liverpool Traction & Light Co. will, it is reported, build an electric railway from Sistersville, W. Va., via Wheeling, to Welsburg, W. Va., and other points. Address East Liverpool, Ohio.

Williamsburg, Ky.—Official: The Louisville & Nashville Railroad will shortly begin construction of the Pine Mountain Railroad from Williamsburg to Trace Branch, Ky., 22.6 miles. W. H. Courtenay is chief engineer at Louisville, Ky.

Street Railways.

Amarillo, Texas.—The Amarillo Street Railway Co., capital \$250,000, has been incorporated by J. C. Paul, H. A. Noble, J. W. Cudington, S. D. Wharton, W. E. Kirk, C. B. Nash, John Sherman, all of Amarillo; John L. Brock and C. C. Harris of Decatur, Ala.

Brunswick, Ga.—F. D. M. Strachan of Brunswick will, it is reported, apply for a franchise to build an electric railway in Brunswick.

Charleston, S. C.—Reported that the Charleston Consolidated Electric Co. will double-track part of its line.

Chester, S. C.—The Chester Traction Co. has been granted a commission and will in January open books for subscriptions to the capital stock, which is to be not less than \$50,000.

Columbia, S. C.—The Suburban Transit Co. gives notice that it will apply to the City Council for a franchise to build its proposed street railway from a connection with the Columbia Electric Street Railway at the corner of Laurel street and Bull street, and thence along the latter to the north city boundary.

Fort Worth, Texas.—The Northern Texas Traction Co. is building an extension from Lake Como to Arlington Heights, and it is reported probable that another extension will be constructed. H. T. Edgar of Fort Worth is vice-president and general manager.

Marshall, Texas.—Hunter & McCormick of Shreveport, La., have secured an electric street railway franchise in Marshall.

Nashville, Tenn.—The Nashville Railway & Light Co. has been authorized to lay several additional tracks.

Oklahoma City, O. T.—J. W. Shartell, general manager of the Oklahoma City Street Railway Co., is quoted as confirming a re-

port that over \$300,000 will be spent for extensions, double-tracking, etc. In the city four miles of new track will be constructed, work to begin after January 1. Construction is now being completed on the line to North Oklahoma City and on the interurban road to Britton.

Pensacola, Fla.—Two applications for street-railway franchises on Garden street are before the City Council—one from A. A. Ericson, A. Ellasburg and others, some of Selma, Ala., and the other from the Pensacola Electric Co.

Roanoke, Va.—The Roanoke Railway & Electric Co. proposes to spend more than \$100,000 in the near future for various improvements, including extensions and double tracks.

San Antonio, Texas.—The San Antonio Traction Co. proposes to extend the San Pedro street-car line into the suburbs. W. H. Tuttle is general manager.

Somerset, Ky.—The Somerset Electric Railroad Co. has completed its line to the Somerset Sanitarium, and Dr. W. Godfrey Hunter is reported as saying that it will be in operation for the Christmas holidays. The line is to be extended next spring.

Tampa, Fla.—The Tampa Electric Co. has been granted a franchise by the County Commissioners to build an extension. George W. Wells is manager.

Wilmington, N. C.—The Consolidated Railway, Light & Power Co. proposes to build extensions and also some double-track.

MACHINERY, PROPOSALS AND SUPPLIES WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Bank Fixtures.—Germania Bank, Charleston, S. C., wants extra safe-deposit cases put in vault.

Boiler.—Brunswick Manufacturing Co., Brunswick, Ga., wants 80-horse-power boiler.

Boiler.—Cloverport Water, Light & Ice Co., Cloverport, Ky., wants one 72-inch by 18-foot tubular boiler. (See "Engine and Boiler.")

Boiler.—See "Engine and Boiler."

Boiler.—Cranfill Bros., R. F. D. No. 1, Cana, N. C., want a new or good second-hand 60, 70 or 80-horse-power boiler. (See "Engine and Boiler.")

Boiler.—Helena Steam Laundry Co., T. M. Street, Helena, Ga., wants prices on 20-horse-power boiler. (See "Engine and Boiler.")

Boilers.—J. C. Carpenter Fig Co., Houston, Texas, wants boilers.

Boilers.—See "Engines and Boilers."

Boilers.—Ole K. Olsen, 610 Hennen Building, New Orleans, La., wants to correspond with manufacturers of boilers relative to securing agency.

Boilers, etc.—Bids will be received until January 3, 1907, at office of D. W. Ross, General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., for furnishing by steamer, free of all charges, on dock at either Colon (Atlantic port) or La Boca (Pacific port), Isthmus of Panama, the following: Marine boilers, track bolts, chucks, hinges, etc. Blanks and full information relating to Circular No. 34 may be obtained from the office of General Purchasing Officer, or the offices of the assistant purchasing agents, 24 State street, New York; Custom-house, New Orleans; 1066 North Point street, San Francisco, and 410 Chamber of Commerce Building, Tacoma; also from Chief Quartermaster, Chicago; Depot Quartermaster, St. Louis; Depot Quartermaster, Jeffersonville, Ind.; Chief Quartermaster, Atlanta, Ga., and the Commercial Club, Mobile, Ala.

Bottles and Boxes.—Webster Springs Development Co., Webster Springs, W. Va., wants bottles and boxes.

Box and Crate Machinery.—Bernard Brown Manufacturing Co., Bernard Brown, president, Commerce and La Branch streets,

Houston, Texas, wants catalogues and prices on machinery for making boxes and crates.

Boxes.—See "Bottles and Boxes."

Brick Machinery.—R. W. Fisher, Oxford, Ala., wants prices, circulars, etc., on brick machinery.

Bridge Construction.—Lafayette Parish Police Jury, Lafayette, La., will receive until January 3, 1907, plans and specifications, free of cost to the parish, for an iron drawbridge with a 16-foot roadway to be built across Bayou Vermillion at or adjacent to the Darnas Broussard crossing. If a plan is selected, bids will be received on same; usual rights reserved. Address Felix H. Mouton.

Bridge Works.—W. G. Polk, Waco, Texas, wants addresses of manufacturers of light iron and steel bridges suitable for county roads.

Broom Factory.—Edward Gurley, High Point, N. C., wants machinery for making brooms; also wants broom corn.

Building Materials.—Brunswick Manufacturing Co., Brunswick, Ga., wants prices on laths, shingles, brick, lime and cement.

Building Materials.—Columbia Brick Co., Inc., 525 13th street N. W., Washington, D. C., wants prices on 50,000 feet lumber, cement and roofing.

Building Materials.—D. G. Zeigler, Columbia, S. C., wants quotations on steelwork, columns, hardware, steel for fireproofing partitions.

Building Supplies.—F. K. Scull, P. O. Box 373, Pine Bluff, Ark., wants information and prices on I beams to span 40 feet front.

Candy-factory Equipment.—See "Confectionery Machinery."

Cannery Equipment.—Sulphur Rock Canning Co., Sulphur Rock, Ark., wants to purchase equipment for canning factory.

Cattle Gates.—Q. K. Nimocks, Rooms 1-8 Knights of Pythias Building, Fayetteville, N. C., wants addresses of manufacturers of automatic gates used in stock-law territory.

Cement.—See "Water-works Machinery and Supplies."

Cigar-rolling Machines.—J. B. Anderson, 749 St. Charles street, New Orleans, La., wants addresses of manufacturers of cigar-rolling suction machines or tables.

Coffee-roasting Plant.—Rely-Taylor Company, 640 Magazine street, New Orleans, La., wants prices on roasting machines and weighing machines.

Concrete Mixers.—Ole K. Olsen, 610 Hennen Building, New Orleans, La., wants to correspond with manufacturers of concrete mixers relative to securing agency.

Confectionery Machinery.—E. L. Harrison, 78 Hunt street, Atlanta, Ga., wants catalogues and prices on machinery for scorching and salting peanuts, popping corn and making popcorn bricks and crisps.

Contracting Literature.—See "Engineering Literature."

Conveyor.—See "Crushing Plant."

Copper Kettles.—See "Preserving Plant."

Cotton Gins.—Dinshaw D. Cama, Ahmedabad, East India, wants addresses of manufacturers of cotton gins. (See "Ginney Equipment.")

Cotton Patches.—A. M. Lockett & Co., Ltd., 343 Baronne street, New Orleans, La., wants addresses of parties handling cotton patches, being clippings and short pieces from cotton bagging used by compress companies in their service.

Creosoting Plant.—S. L. Lieber, care of Southern Lumber Co., Monroe, La., will want prices on equipment for creosoting plant.

Crushing Plant.—American Manufacturing Co., 85 North Forsyth street, Atlanta, Ga., wants 100-ton machine for crushing slate fine enough to go through 20-mesh sieve, or, in other words, fine fillers, and to be in such shape as to crush one-inch concrete material; also prices on elevator, conveyor, engine and boiler; want prices on the outfit complete, delivered f.o.b. Rockmart, Ga.; name prices, when shipment can be made and best dealers' discount.

Dredge.—Bids will be received until December 28 at the United States Engineer Office, Wilmington, N. C., for furnishing or building one clamshell dredge complete. Information furnished on application; Joseph E. Kuhn, Major, Engineers.

Dredging Machines.—Gulf Dredging & Timber Co., Ltd., New Orleans, La., wants two two-yard dredge machines.

Electrical Equipment.—Hightower Box & Tank Co., G. J. Hightower, Jr., president, Atlanta, Ga., wants electrical equipment.

Electrical Equipment.—Robinson Hotel Co., Tulsa, I. T., wants prices on 75 and 100-kilowatt dynamo.

Electrical Equipment.—Cloverport Water,

Light & Ice Co., Cloverport, Ky., wants one 75-kilowatt generator, alternating current; one switchboard complete, crossarms, wire and supplies generally for electric-light plant.

Electrical Machinery.—See "Grinding Machinery."

Electric Hoists, etc.—Bids will be received until January 2 at the Bureau of Supplies and Accounts, Navy Department, Washington, D. C., for furnishing at the navy-yard, Washington, D. C., two four-ton and one two-ton electric hoists and a refrigerating plant of 16 tons capacity. Applications for proposals should refer to Schedule 304. Blank proposals will be furnished on application; E. B. Rogers, paymaster-general, United States Navy.

Electric-light Plant.—City of Grottoes, Va., wants estimates on constructing electric-light plant. Address City Clerk.

Electric-light Plant.—John C. Printup, Postoffice Box 236, Rome, Ga., wants to correspond with parties building and equipping electric-light plants complete; also with manufacturers of electric appliances.

Elevator.—See "Crushing Plant."

Elevator.—Interstate Building Co., J. M. Barker, president, Bristol, Tenn., wants a first-class elevator, installed and guaranteed.

Elevator.—B. H. Merrimon, Greensboro, N. C., wants to purchase an elevator.

Engineering Literature.—H. A. Cranwell, City Engineer department, Shreveport, La., wants catalogues, pamphlets or other literature pertaining to interests of the engineer or contractor.

Engines.—Robinson Hotel Co., Tulsa, I. T., wants prices on gas engines.

Engine and Boiler.—See "Crushing Plant."

Engine and Boiler.—Cloverport Water, Light & Ice Co., Cloverport, Ky., wants one 100-horse-power auto or four-valve engine and one 72-inch by 18-foot tubular boiler.

Engine and Boiler.—Harris, Woodson & Co., Lynchburg, Va., want engine and boiler.

Engine and Boiler.—Cranfill Bros., R. F. D. No. 1, Cana, N. C., want 60-horse-power engine and 60, 70 or 80-horse-power boiler; new or good second-hand.

Engine and Boiler.—Helena Steam Laundry Co., T. M. Street, president, Helena, Ga., wants prices on 8 or 10-horse-power C. C. engine and 20-horse-power boiler.

Engines and Boilers.—Columbia Brick Co., Inc., 525 13th street N. W., Washington, D. C., wants prices on engines and boilers for sand-lime brick plant.

Engines and Boilers.—Hightower Box & Tank Co., G. J. Hightower, Jr., president, Atlanta, Ga., wants engines and boilers.

Fencing.—W. J. Epperson, Bronson, Fla., wants prices on iron cemetery fences.

Fencing.—See "Cattle Gates."

Flour Mill.—Cranfill Bros., R. F. D. No. 1, Cana, N. C., want a four-stand roller mill.

Gas Fixtures.—Trenton Heat & Light Co., W. J. Dickerson, Trenton, Ky., wants acetylene gas fixtures, street lamps, carbide (by ton or car lots), etc.

Gas Plant.—Bay St. Louis Ice, Light and Bottling Works, A. L. Stokoe, Bay St. Louis, Miss., wants information as to best gas plant to be installed; 20,000 cubic feet capacity tank.

Gas Producers.—J. A. Kenney, Jennings, La., wants addresses of manufacturers of gas producers.

Gear Cutter.—Truxal-Painter Manufacturing Co., Carl Painter, manager, Chattanooga, Tenn., wants a new or second-hand gear cutter that will cut plain spur gears of 24 inches or less in diameter.

Ginney Equipment.—Dinshaw D. Cama, Ahmedabad, East India, wants addresses of manufacturers of machinery for cotton gins. (See "Cotton Gins.")

Glass-bottle Machinery.—Fort Worth Glass & Sand Co., R. R. No. 5, Box 87, Fort Worth, Texas, wants blowing machines for beer bottles.

Grinding Machinery.—J. S. Cock, Christiana, Norway, wants addresses of manufacturers of electric grinding machines, also other kinds of grinding machines.

Hoisting Engine.—Standard Lumber Co., J. B. Boucher, president, Decatur, Ala., will purchase a new or second-hand hoisting engine, 12 to 20 horse-power.

Heading Mill.—See "Stave Mill."

Heating Apparatus.—M. M. Phillips, secretary building committee, Itta Bena, Miss., wants prices on heating apparatus for public-school building.

Hoisting Equipment.—Collins Bros., 204 Millam street, Houston, Texas, want to purchase a second-hand 10-ton chain hoist.

Iron-working Machinery.—Georgie Foundry & Machine Co., Rome, Ga., wants one 36-inch

car-wheel boring mill, or one 36-inch boring and turning mill, either new or second-hand, if in good condition.

Ironworking Machinery.—See "Gear Cutter."

Laundry Machinery.—Helena Steam Laundry Co., F. M. Street, president, Helena, Ga., wants prices on new and second-hand laundry machinery.

Lighting Plant.—Natchez, Miss., will receive bids until March 7, 1907, for lighting the city for a term of 10 years from March 7, 1908. Specifications on file in office of Geo. T. Elsele, City Clerk. For further particulars address City Clerk or S. B. Stewart, chairman lights and water committee, Natchez, Miss.

Logging-car Supplies.—Tar River Lumber Co., Rocky Mount, N. C., wants 10 draw heads, 80 springs, 20 spring plates, 10 draw-head springs and 36 boxes for logging-car repairs.

Lumber.—Columbia Brick Co., Inc., 525 13th street N. W., Washington, D. C., wants prices on 50,000 feet of lumber.

Lumber.—H. E. Percival, care Percival Concrete Tie Co., Houston, Texas, wants to purchase a few hundred feet of Tupelo gum for experimental purposes; if same proves successful will place order for quantities.

Machine Tools.—Lenoir Buggy Co., J. R. Boulware, secretary, Lenoir, N. C., wants an iron shaper, iron lathe, 10 or 12-foot bed, 24-inch swing, and a heavy drill press.

Mill Supplies.—Columbia Brick Co., Inc., 525 13th street N. W., Washington, D. C., wants prices on pulleys, belting, shafting, etc., for sand-lime brick plant.

Office Furniture.—Jerry Black, manager Black's Printery, Postoffice Box 384, Spartanburg, S. C., will purchase office furniture, such as cabinets, etc.

Paper pulp Machinery.—J. M. Lang, Calhoun, Ga., wants information regarding machinery, equipment and cost of establishing plant to make pulp or paper from the refuse of sawmills.

Paving Work.—Boulevard Commission, H. B. Goodridge, chairman, Norfolk, Va., will receive bids until January 10, 1907, for building a macadam roadway on Colley avenue. Specifications, including engineers' estimate, instructions to contractors and form of contract, can be had on application, and plans can be seen at office of W. T. Brooke, City Engineer. Certified check in sum and under conditions named in blank proposal must accompany each bid. Bids will also be received at same time and place for improving a part of Colonial avenue and Jamestown avenue. An approximate schedule of the work to be done is shown on the blank forms of proposal attached to specifications, which may be obtained on application to City Engineer's office. Bids will be received on asphalt paving on a concrete base per square yard; for bitulithic pavement on a concrete base per square yard; for granite curbing per linear foot. Certified check on some local bank in the amount and under conditions expressed in blank form of proposal must accompany each bid. Usual rights reserved.

Paving, etc.—John M. Murch, County Auditor, Galveston, Texas, will receive bids until December 31 for paving the roadway with vitrified brick, approximating 23,180 square yards; concrete sidewalk curbing approximating 9965 square yards of paving, and 9084 lineal feet of curbing; also 5233 lineal feet of iron posts and railing on the seawall. Bids will be received on the work as a whole or in sections; work to be done in accordance with plans and specifications on file in offices of County Surveyor and Auditor, from whom copies can be obtained on application. Certified check for \$300 must accompany each bid; usual rights reserved.

Piping.—See "Water-works Machinery and Supplies."

Piping.—Wytheville Sanitary Co., Wytheville, Va., wants quotations on 450 feet 16-inch pipe, weighing about 60 pounds to the foot.

Piping.—New State Gas & Oil Co., Chickasha, I. T., wants prices delivered at Hobart and Komoity, O. T., on 21,000 feet 6½-inch No. 11-½ 14-thread casing, 26,400 feet 4-inch No. 6 14-thread casing, 21,120 feet 4½-inch No. 6-73 14-thread casing, 42,480 feet 4-inch line pipe, No. 10-66 8-thread casing. Could use second-hand if in good condition.

Plumbing.—M. M. Phillips, secretary building committee, Itta Bena, Miss., wants prices on plumbing for public-school building.

Plumbing Supplies.—See "Water-works Equipment."

Preserving Plant.—J. C. Carpenter Pig Co., Houston, Texas, will purchase special machinery used in fig-preserving plant; also copper kettles.

Printery Supplies.—Jerry Black, manager

Black's Printery, Postoffice Box 384, Spartanburg, S. C., will purchase new type for printing plant.

Pumping Engines.—See "Water-works Machinery and Supplies."

Pumps.—Ole K. Olsen, 610 Hennen Building, New Orleans, La., wants to correspond with pump manufacturers relative to securing agency.

Railway Equipment (electric).—United Cities Traction Co., Ira L. Reeves, president, Muskogee, I. T., wants prices on rails, ties, cars, spikes, bolts, fastenings, poles, wire and all other materials for an electric railway.

Railway Equipment.—R. B. Godley Lumber Co., R. B. Godley, president, Dallas, Texas, wants three to four miles 36 to 40-pound new or relays steel rails.

Refrigerating Plant.—See "Electric Hoists, etc."

Safe-deposit Cases.—See "Bank Fixtures."

Sawmill.—C. E. Cronise, R. F. D. No. 1, Box 33, Buchanan, Va., wants prices on new and second-hand sawmill; also cut-off saw.

Sawmills.—Independent Lumber Co., John A. Hill, general superintendent, Rockmart, Ga., wants catalogues and quotations on portable sawmills.

Saw-sharpening Machines.—J. S. Cock, Christiana, Norway, wants addresses of manufacturers of saw-sharpening machines.

Seating.—See "Theater Equipment."

Seating.—Fogle Bros. Company, Winston-Salem, N. C., wants pews for seating Alumnae Hall of Salem Female Academy.

Sewerage Supplies, etc.—City of Columbus, Ga., will let contract December 28 for furnishing the city for the year 1907, January 1 to December 1, inclusive, terra-cotta drain and sewer pipes, to be delivered at such points in the city as may be required by the Superintendent of Public Works. The following sizes to be used: 4-inch, 6-inch, 8-inch, 12-inch, 15-inch, 18-inch, 24-inch. Also the following size terra-cotta running traps: 4-inch, 5-inch, 6-inch, 8-inch, 10-inch, made with handholes, and 12-inch traps without handholes; furnishing brick for sewer or other purposes; furnishing grates or other castings for sewer or other purposes, etc.

Sewerage System.—Frank Wittenberg, secretary Board of Improvement, Sewer District No. 46, 204 Louisiana street, Little Rock, Ark., will receive bids until December 31 for constructing sewer mains and laterals for Sewer District No. 46 according to specifications and profiles on file in office of E. A. Kingsley, Superintendent of Public Works, City Hall. Certified check for \$500 must accompany each bid; usual rights reserved.

Sewerage System.—Henry Weldman, secretary Board of Improvement, Sewer District No. 43, 204 Louisiana street, Little Rock, Ark., will receive bids until December 31 for constructing sewer mains and laterals for Sewer District No. 43 according to specifications and profiles on file in office of E. A. Kingsley, Superintendent of Public Works, City Hall. Certified check for \$500 must accompany each bid; usual rights reserved.

Smoking Pipes.—John C. Blair, Wytheville, Va., wants addresses of manufacturers of smoking pipes.

Stave Mill.—J. T. Orndorff, Star Tannery, Ga., wants prices on stave and heading machines, cylinder saw cut staves, etc.

Steel Wire.—Elastic Spring Bed Co., Roseboro, N. C., wants spring-steel wire.

Street Signs.—Bids will be received until January 16 at the office of Ennis M. Douglass, City Register, Memphis, Tenn., for furnishing signs bearing street names; signs to be of metal not less than No. 20 gauge; the letters forming names to be painted in white on a blue or black background, or they may be perforated or stamped; letters forming street names to be about four inches high and properly shaped; to be on both sides of metal signboard, which shall be provided with a convenient means of affixing the horizontal sign to a steel rod. Bidders must submit samples of signs they propose furnishing and cuts of the method of fastening signs to a post to be provided by city; bids to be both on sign and bracket, but separated so that the city can purchase as many signs or as many brackets as found necessary. Certified check for \$250 must accompany each bid; usual rights reserved. James H. Malone is Mayor.

Theater Equipment.—D. G. Zeigler, Columbia, S. C., wants quotations on curtains, seating, etc.

Tobacco Machinery.—See "Cigar-rolling Machines."

Tunnel.—Bids will be received until March 18 at office of High Commissioners for New Zealand, Westminster Chambers, 13 Victoria street, London, S. W., for construction of

tunnel about 5 miles 25 chains long at Arthur's Pass, through dividing range between Canterbury and Westland, on route of New Zealand Midland Railway. Plans, specifications and conditions may be seen and information obtained from Virgil G. Bogue, consulting engineer, 15 William street, New York; P. S. Hay, engineer-in-chief, Public Works Office, Wellington, N. Z.

Water-works.—Town of Norton, Va., J. L. Lyon, Mayor, is receiving bids for a franchise for a water supply system.

Water-works.—D. F. Huddle, Mayor, Pineville, La., will receive bids until January 15 for the construction of water-works. Certified check for \$500, payable to the Mayor, must accompany each bid. Plans may be seen at the Mayor's office, or at the office of Ira W. Sylvester, consulting engineer, Alexandria, La. For copies of specifications and information address the Mayor. Usual rights reserved.

Water-works Equipment.—N. F. Parker, Southport, N. C., wants to install private water-works for furnishing water for bath and closets in house (town having no water-works), and wants information as to best method of securing the necessary supply.

Water-works Machinery and Supplies.—A. P. Wood, Mayor, Ada, I. T., will receive bids until December 28 for Portland cement, electrically operated pumping engines, valves

and sluice gates and 8000 feet each of 8 and 10-inch water pipe. Specifications may be had by addressing O'Neil Engineering Co., Dallas, Texas.

Weighing Machines.—Rely-Taylor Company, 640 Magazine street, New Orleans, La., want prices on weighing machines. (See "Coffee-roasting Plant.")

Woodworking Machinery.—See "Stave Mill."

Woodworking Machinery.—See "Box and Crate Machinery."

Woodworking Machinery.—J. E. Hellams, Gordo, Ala., wants a good second-hand planer, matcher and molder; also gang edger.

Woodworking Machinery.—Norfolk Hardwood Co., Norfolk, Va., want second-hand four-sided planer and matcher; capacity 60 to 70 feet. (Woods or Glencove preferred.)

Woodworking Machinery.—J. B. Lupo, Long Run, S. C., wants a lath mill and bolter; also a drag or cut-off saw operated by compressed air, this to be driven by a small gasoline motor, so logs and poles can be cut on a large area without moving.

Woodworking Machinery.—Hightower Box & Tank Co., G. J. Hightower, Jr., president, Atlanta, Ga., wants one band resaw and one double surfacer.

Woodworking Machinery.—Martin-Vandiver Lumber Co., Anderson, S. C., wants planer, band saw and turning lathe.

of Graham, Texas. He also has for sale a 30,000-acre tract.

All Kinds of Lands.

All kinds of Southern lands (fruit, cotton, truck, stock raising, colonization, etc.) are offered for sale by George Kilborn, secretary, 59 St. Francis street, Mobile, Ala. He will furnish map and details.

Boilers, Pumps, Concrete Mixers.

Manufacturers of boilers, pumps and concrete mixers needing representation in the South are invited to address Ole K. Olsen, Hennen Building, New Orleans, La. Mr. Olsen wants to act as agent.

Constructing Millwright Disengaged

A superintendent constructing millwright, a mechanical draftsman of 10 years' experience, seeks a new engagement. For full details address No. 54, care of the Manufacturers' Record, Baltimore, Md.

Wants Crushed Garnet Flint.

The Manufacturers' Record is informed that the B. M. Root Company, manufacturer of plow-handle machinery, York, Pa., wants manufacturers to quote prices on No. 3 crushed garnet flint in lots of 300 pounds or over.

To Introduce an Invention.

An inventor wishes to correspond with some one prepared to invest in the introduction of an article recently patented and said to be needed in every city. For full details address Hugh Watson, 510 K street N. W., Washington, D. C.

Woodworking Plant for Sale.

A woodworking plant offered for sale includes equipment for manufacturing cross-arms, pins, brackets and handles, three electric motors furnishing power. Address Alleghany Pin & Bracket Co., Covington, Va., for particulars.

Granite Quarries for Sale.

Southern granite quarries near Edgefield, S. C., are offered for sale. They comprise 60 acres of land, the face said to be 1000 feet and the depth 100 feet, fully equipped with derricks, machinery, machines shops, etc. Address Halcott P. Green, Columbia, S. C., for details.

Machine Works Wants Manager.

A manager is wanted for a large machine-works plant. He should be of mature age, good address, possess executive ability and have had previous experience in same branch of industry. To investigate this proposition address No. 52, care of the Manufacturers' Record.

Retains J. H. Alexander.

Mr. John Howard Alexander, formerly engineer with the Hamilton Bridge Co., Hamilton, Ontario, is now concrete engineer of the General Fireproofing Co., Youngstown, Ohio, manufacturer of expanded metal, cold-twisted lug bars, pin-connected girder frames and herring-bone expanded steel lath.

Fay & Egan at the Exposition.

The J. A. Fay & Egan Company of Cincinnati, Ohio, will exhibit its line of woodwork-

ing machinery at the Jamestown Exposition, Sewell's Point, Norfolk, Va. It plans to erect a \$65,000 building and will install a number of electric motors in order to show the wood-working machines in operation.

Cement Block Machine Patent.

The patent on a cement brick, hollow building-block and sidewalk-block machine is held by D. F. McDonald of Lake Butler, Fla., who is offering manufacturing rights in different parts of the country. Mr. McDonald is also desirous of interesting capital in his enterprise and enlarging the machine plant he has now.

Special Kind of Portland Cement.

A plant for the manufacture of a special kind of Portland cement is being built at York, Pa., by the Sandusky Portland Cement Co. of Sandusky, Ohio. Its daily capacity will be 400 barrels of cement at the start, to be increased in the future. Contracts for buildings and machinery have been awarded.

An Opportunity for Surveyors.

Sealed proposals are invited and will be received to January 15, 1907, for surveying some 50,000 acres of sea-marsh land in the Buras levee district, west bank Mississippi river, 50 miles below New Orleans. For particulars address J. B. Festerling, president, Buras, La., or John Dymond, Jr., 339 Carondelet street, New Orleans, La.

Atlanta Proposes Municipal Ownership.

The city of Atlanta, Ga., is considering the advisability of building gas and electric lighting plants, to be owned and operated by the municipality. Its officials have engaged the Hall-Ilges Company, mechanical and electrical engineers, to report on the feasibility of this proposition.

Arthur Koppel Company in San Francisco.

The Arthur Koppel Company announces from its offices at 66-68 Broad street, New York, that it is about to establish a branch office in San Francisco, Cal., and L. H. Abenheimer, at present registered at the Baltimore Hotel, San Francisco, is to be in charge. The Koppel Company is well known for its industrial railway equipments.

Not With Prescott Company.

The J. A. Prescott Machinery Co. (engineers, mine and railroad supplies) states that Atwood Benton is no longer connected with the company. The Prescott Company continues to be prepared to quote estimates on supplies and machinery for railways, mines and other industrial enterprises. Its offices are at 403 Chemical Building, St. Louis, Mo.

Death of George W. Remington.

A card from the Remington Machine Co. (ice and refrigerating machinery) of Wilmington, Del., announces the death of that corporation's president, George W. Remington. This officer became well known to the trade from his connection with that successful enterprise, and his death will be regretted by the trade, as well as by those who knew his qualities from personal intercourse.

Maynard—Specialist in Ice Machinery

Ice and refrigerating machinery is the specialty of J. F. Maynard, 116-122 Geyer avenue, St. Louis, Mo. The machines Mr. Maynard furnishes can be obtained in capacities from 1 to 100 tons. He has had some years' successful experience in meeting the peculiarities of various industries requiring ice and refrigerating, and is in a position to consult with purchasers needing advice in this direction.

Installing Bonar Oiling Systems.

James Bonar & Co., Inc., of Pittsburgh, Pa., have at present 13 complete automatic continuous oiling systems to install. They have just closed with the Carnegie Steel Co. for three systems for the Duquesne Steel Works, one for the Jones & Laughlin Steel Co. and one for the Pittsburgh & Butler Street Railway at Renfrew, Pa. The Bonar catalogue on oil filtration is very interesting and will be sent to anyone requesting it.

General Roofing Manufacturing Plant.

A \$300,000 plant for the manufacture of roofing materials will soon be in operation at East St. Louis, Ill. It is owned by the General Roofing Co., and the buildings are now in course of erection, with all contracts for supplies and machinery awarded. There will be eight one-story buildings, with a floor space of 46,000 square feet, equipped for making daily from 25 to 30 tons of saturating felts, to be used in the company's factory producing 70 tons of roofing daily. Mr. Geo.

M. Brown is president of the company; M. J. Moore, secretary-treasurer, and Ernest C. Kilpstein, architect, in charge of establishing plant.

A Business Reminder.

The average American business man is at times so taken up with work that he may have in hand that he is oftentimes apt to overlook some important engagement. To overcome this Samuel H. French & Co. of Philadelphia, paint, varnish and brush manufacturers and dealers in all kinds of building supplies, have issued, as has been their custom many years, a neat diary with space for every day in the year.

Two Big Steel Dredges.

The Isthmian Canal Commission opened proposals in Washington last week for the construction of two big steel dredges, and it is understood the lowest bidder was the Newport News Shipbuilding & Dry Dock Co. of Newport News, Va. These vessels will be of the type commonly called "sand suckers," erected of steel throughout, with propelling engines and dredging machinery. They will cost about \$300,000 each.

Mitchell Clay Manufacturing Co.

This season's trade has been found more than usually good by the Mitchell Clay Manufacturing Co., 5623 Manchester avenue, St. Louis, Mo. The company's plant is operating smoothly and many orders on file call for a continuance of present production. In supplying fire-brick to its trade the Mitchell Company aims to give complete satisfaction to buyers, as it believes this is the best way to ensure successful dealings.

Cordage Mill for Sale.

The plant of the Alabama Cordage Co. of Montgomery, Ala., will be offered for sale publicly on January 10. This property includes mill buildings, textile machinery, six acres of land, etc. Until the date of sale sealed proposals for the purchase of the property will be received and the highest bid, private or publicly, will be accepted, subject to the usual restrictions. For full information address T. J. Reynolds, trustee of the company.

Some Railway-Equipment Contracts.

Some good contracts for railway equipment have been taken recently and completed by Messrs. Robert M. Burns & Co., 1453 Railway Exchange, Chicago. They include orders for 16 tank cars for the Union Oil Co. of California, 6 tank cars for the Louisville Cotton Oil Co. and 25 flat cars for the Ferro Carrille Pan-Americano Railroad of Mexico. The different sections of the country to which these shipments were made indicates the territory covered by Burns & Co.

Southern Supply and Machinery Dealers.

It is announced that the next annual meeting of the Southern Supply and Machinery Dealers' Association will be held in Cincinnati, Ohio, on May 8, 1907. The National Supply and Machinery Dealers' Association and the American Supply and Machinery Manufacturers' Association will meet at the same time and in the same city. It is expected this meeting will be the largest the supply men have ever held. No doubt all the representative manufacturers of the country or their representatives will be present.

Universal Steel Corner Bead.

People who are interested in improved building supplies are invited to investigate the factors of merit contained in the Universal steel-corner bead manufactured by the Rogers-Shear Company of Warren, Pa. Architects acquainted with this specialty are specifying it, those not acquainted with the bead (architects, builders and building owners) will find particulars in an illustrated leaflet now being distributed. The bead produces a straight and true corner, forms a perfect alignment for the plasterer, makes an attractive finish, and is said to effect savings in the cost of building work.

Saws That Cut Jail Bars.

In building a new county jail the authorities of Vicksburg, Miss., determined to have the steel cages made of steel bars that would resist tools of any description, and engaged John Christian of Christian & Rooks of Vicksburg to make the tests as to the tool-proof qualities of the bars. The bars were installed under a guarantee that they would resist the action of any tool, but when Mr. Christian made the test with the use of a No. 250 12-inch Starrett saw, after several others had failed to cut the bar at all, it sawed the bar in two parts in four hours. These saws are made in Athol, Mass., by the L. S. Starrett Company.

INDUSTRIAL NEWS OF INTEREST

Patent for Sale.

The patent on a cake and pie pan lifter is offered for sale by David P. Dellinger of Cleveland, N. C.

Mexican Timber Lands.

A 350,000-acre tract of pine timber land in Durango, Mexico, is offered for sale by W. M. Stephenson, Leesville, La.

Offers North Carolina Timber.

About 20,000,000 feet of original growth pine timber in North Carolina is offered for sale by R. E. Prince of Raleigh, N. C.

Wants Southern Mineral Lands.

Southern owners of coal and iron lands who want to sell their properties are invited to address Wm. Clerklin of Akron, Ohio.

Sawmill and Timber.

A sawmill and 6000 acres of timber and other lumber properties are offered for sale by Bardin & Edwards of Live Oak, Fla.

Phosphate Land for Sale.

Two hundred acres of pitted phosphate land in Florida, located on railway, is offered for sale by Kirk & Bowie, Jacksonville, Fla.

A Copper-Pyrites Proposition.

A copper-pyrites proposition, with 40-foot shaft, is offered for sale in whole or part. For details address A. D. & M. P. Greenfield, Atlanta, Ga.

Wants an Agency.

The agency for a reliable commercial enterprise is wanted, either in Atlanta or Savannah. Address No. 51, care of the Manufacturers' Record.

Texas Farm Lands.

Those who may be interested in buying farm lands in Texas can address Messrs. G. Denton & Co. of San Antonio, Texas, for particulars regarding their properties.

Texas Farm for Sale.

A 3300-acre farm in Texas is offered for sale. It has 150 acres in cultivation and 400 is fenced. This property and others are offered by H. L. Atkins of Bandera, Texas.

Trackage for Industrial Purposes.

Fifty acres of trackage for industrial purposes, located one mile from the municipal hall in Oklahoma City, are offered by Messrs. V. E. Hoskins & Co. of Oklahoma City, Okla.

Literature for Engineers and Contractors.

Mr. H. A. Cranwell of the City Engineer's department, Shreveport, La., wants literature of interest to engineers and contractors.

Wants Draughtsmen and Checkers.

A New York firm wants draughtsmen and checkers on structural steel work for buildings, and applications are to be made by mail only. Address Post & McCord, 44 East 23d street, New York.

A Colony Proposition.

Some 46,000 acres of Texas land, said to be especially adapted as a colony proposition, are offered for sale by R. C. McPhail

Company's Foreign Trade Increasing.

Owing to its increasing foreign trade, the Cement Machinery Co. of Jackson, Mich., has established offices at 29 Broadway, New York, exclusively to handle this trade. Messrs. A. M. Lawrence & Co., the well-known export representatives, are in charge. The Cement Machinery Co. has received several orders from the Brazilian military engineers (government jurisdiction) for the Favorite brick machinery. It manufactures the Favorite sand-cement brick machines with mechanical tamper; the Normandin, Cemaco, Champion and Peninsular block machines, concrete mixers and ornamental molds.

Acetylene Company in New Location.

The Acetylene Light & Heat Co., manufacturer of the Star automatic gas generators, has removed its manufacturing plant and main offices from Denton, Texas, to 1608 Houston street, Fort Worth, Texas. This company found that its increasing trade demanded better facilities, and Fort Worth was chosen because of its central location and railway transportation advantages. Mr. E. O. Wood of Fort Worth has purchased an interest in the enterprise and been appointed general manager. The other officers are C. P. Scripture, president and treasurer, and C. W. Watson, secretary and assistant manager.

Wooden Textile Mill Supplies.

Wooden supplies for textile mills are in large demand in the South and in other textile manufacturing centers. The market is being supplied by a number of prominent enterprises, and among the new plants making a specialty of this class of materials is that of the Woodstock Hardwood & Spool Manufacturing Co. of Charleston, S. C. This company has its factory in operation now, and its territory extends from Canada to South America and from Massachusetts to Oregon. It manufactures the patented Williams Steel-rod and washer-nut bobbin for rope and cordage manufacture, reels, boxes, general wooden textile supplies, etc.

Specifying Sibley-Menge Bricks.

Many architects are specifying Sibley-Menge bricks for structures which are planned for erection in the South, especially for public buildings. They are expressing themselves in most complimentary terms as to the character of the bricks. Messrs. Carpenter, Blair & Gould of New York have chosen Sibley-Menge buff bricks for the 13-story First National Bank Building to be erected at Montgomery, Ala. The Carnegie Library buildings at Talladega, Ala., and Jackson, Miss., are being built of Sibley-Menge face bricks. The Sibley-Menge Press Brick Co. of Birmingham, Ala., manufactures these bricks in red, buff, mottled and fancy colors.

Engines and Boilers in Stock.

The Atlas Engine Works of Indianapolis, Ind., believing that during the ensuing year the uppermost thought in the buyer's mind will be, "Where can we get quick shipment of goods wanted?" will publish in the Manufacturers' Record a list of its engines and boilers in stock. This list will be kept current. This is said to be an entirely new departure in the engine and boiler trade. The Atlas Company has just closed an extraordinary year, claiming to have increased its sales 55 per cent. and shipments 90 per cent., and to have so taken care of this remarkable increase as not to have had at the end of its fiscal year one single past-due order on file.

Chicago Office for Roberts & Abbott.

The Roberts & Abbott Company, engineers, Cleveland, Ohio, has found it advisable, due to increasing work in the West, to provide facilities by establishing an office at Chicago. Mr. W. D. Ball, electrical engineer, has been placed in charge, with offices in the First National Bank Building. He has been connected with a great deal of electrical and civil engineering work, principally for trolley railways and hydraulic plants. He was one of the United States representatives at the Paris Exposition in 1900. The efforts of the Chicago office will be along the same lines on which the Roberts & Abbott Company has specialized, namely, interurban railways and hydraulic plants.

Bessemer Making Heavy Castings.

Dispatches from Bessemer, Ala., state that most of the heaviest castings for furnace No. 4 of the Tennessee Coal, Iron & Railroad Co. at Ensley are being made in Bessemer. The Bessemer Machine & Foundry Co. has already shipped thousands of pounds of castings to Ensley. The 11 great columns for the furnace are being manufactured and will weigh 200,000 pounds. The hearth jacket, weighing over 150,000 pounds, is being cast in 11 sections. Other castings equally as

massive are being made and when all are completed the amount of iron used will be large. The castings which have been delivered have been favorably commented on by the officials of the purchasing company.

Johns-Manville in New Orleans.

In order to handle to the best advantage its rapidly-increasing business the H. W. Johns-Manville Company of New York will open a New Orleans branch on January 1. This will consist of a large retail store, offices and warehouses, in the three-story building at Baronne and Perdido streets. Mr. W. E. Carpenter, formerly well known as the local manager of the Western Tube Co., has been appointed manager of the New Orleans branch. Among the well-known products of the company might be mentioned asbestos roofing and insulating materials, steam-pipe and boiler covering, asbestos packings of all kinds, "Noark" fuse devices and other well-known electrical specialties.

A Natural Lubricating Oil.

Those who are in charge of machinery of any kind are naturally interested in improved lubricating materials. They should investigate the natural oil, which is being offered to consumers and called for in increasing quantities because of its peculiar merits. This is the Crescent natural lubricating oil, which is said to come direct from the earth and have, without any treatment, the qualities of economy and efficiency for lubrication aimed at by engineers when they buy lubricating products. It is stated that this oil is unaffected by heat, remains liquid at zero, works freely in any lubricator, and has other valuable features. It is being introduced by the American Lubric & Refining Co. of Chicago, Ill.

Russia Praises Miracle Molds.

The Miracle Pressed Stone Co. of Minneapolis, Minn., recently received an endorsement of its sewer-pipe molds from Russia. On September 1 an order was received from Bodo Egestorff of St. Petersburg, Russia, for 10 and 12-inch sewer-pipe molds. Mr. Egestorff wrote at that time if they were satisfactory he would want more of the various sizes. On December 14 another letter came from Mr. Egestorff enclosing a large order for various sizes and stating that he had received the first shipment, and was very much pleased with the molds. The Miracle Company states it now has customers on its books from practically every civilized country in the world, and that it recently sold one of its Exhibit "A's" to the English Government.

Fire Protection on the Farm.

The question of fire protection for the farmer is one worthy of consideration. He has telephones, rural delivery, daily papers, electric lines and electric lights, and should have fire protection. The modern farm is equipped with substantial structures that represent a good portion of the farmer's investment, and with ready water at hand there should be no reason why he should not employ the means to utilize it in case of fire. To meet this requirement it is only necessary to install a pump that will produce sufficient force to extinguish fires that may occur. Farmers interested in fire protection are invited to investigate the Myers double-acting force pump, which throws a steady, solid and continuous stream of water. This pump is manufactured by F. E. Myers & Bro., Ashland, Ohio.

Purchased Interest in Plant.

It is announced that Messrs. James A. Glover, A. L. Arwood, R. E. George, R. L. Westwater and M. N. Griffin have purchased the interest of R. N. Towers in the Georgia Foundry & Machine Co. of Rome, Ga. Mr. Griffin was formerly secretary and treasurer of the company, and has now been elected president and general manager. Mr. Glover is secretary and treasurer, and Messrs. Arwood, Westwater, George, Glover and Griffin are the directors. Messrs. Arwood, George, Glover and Griffin have all been connected with the enterprise for some years. The Georgia Foundry & Machine Co. will continue manufacturing ore washers, mining-car wheels and axles, smokestacks and saw mandrels and act as agent for high-grade engines, boilers, heaters and general mill equipment.

Contract for Electric Railway.

Messrs. D. E. Baxter & Co., 27 William street, New York, who have contract for construction and equipment of Charleston & Summerville Electric Railway (Charleston to Summerville, S. C., 23½ miles), have two large construction gangs at work, one at Charleston and one at Summerville. The power-house will be located five miles out-

side of Charleston and will be a concrete fireproof building 51x153 feet, with an "L" 112x47 feet, in which will be two Snow twin tandem gas engines 24x36, with two 500-kilo-watt 25-cycle generators, and all necessary machinery for a first-class power-house. This road will run through the principal streets of Charleston to the Battery, with a spur running from the main line to the new Charleston Navy-yard. The construction will be heavy, to carry both passengers and freight, and will traverse the rich phosphate district of South Carolina.

Whitehall Cement in Reinforced Concrete.

Whitehall-Portland cement was used in what is probably the largest reinforced concrete building erected in the country. This building is the nine-story 68x335-foot structure for the A. H. Hugh Printing Co.'s plant in Cincinnati, Ohio. The reasons why this cement was adopted is given as follows: "The relative strength of 15 Portland cements was determined by making a concrete beam out of each brand of cement. At a later date all these beams were broken, and, inasmuch as the strength of the beam made with Whitehall Portland cement exceeded the strength of any other beam, being in some cases considerably over twice as strong, Whitehall was selected and used in this work." In a pamphlet recently sent out by the Whitehall Company, this building is fully illustrated in course of construction. This cement is manufactured by the Whitehall Portland Cement Co., Land Title Building, Philadelphia, Pa.

The Reed Patent Swivel Vise.

Users of vises will be interested in the announcement that the Reed universal vertical and horizontal swivel vise (jaws and both swivels clamped with one operation of the lever) can now be furnished promptly. This vise is adapted to machinists; locomotive works; structural iron builders; carriage, gun, sewing machine and furniture manufacturers; jewelers and mechanics generally. It is said to have all the advantages of the regular swivel vises, can be fastened at any angle, and when placed in any position it is guaranteed not to slip on any work for which the different styles and sizes are adapted. It is fastened and released with one operation of the lever; therefore, there are no obstructions above the bench to interfere with the mechanic on any kind of work. The manufacturer of this vise is also manufacturing solid-jaw vises and pipe vises. The Fulton Machine & Vise Co. of Lowell, N. Y., is the manufacturer and has issued an illustrated booklet telling about its vise specialties.

International Gas Power Co.

The International Gas Power Co. of St. Joseph, Mo., succeeds the Parker Producer Gas Co. It has a capital stock of \$600,000, with \$200,000 preferred. Mr. E. P. Snowden of St. Joseph, its president and general manager, is well known as having been interested in other gas projects; A. T. Averill of Cedar Rapids, Iowa, first vice-president, is president of the Cedar Rapids National Bank, Cedar Rapids Gas Co. and Cedar Rapids & Marion Telephone Co., as well as identified with other enterprises; Charles Webster of Minneapolis, Minn., second vice-president and treasurer, is known in the Northwest as a capitalist and financier; W. D. Rusk of St. Joseph, secretary and counsel; Paul W. Bosart, assistant to the president, is an electrical engineer of considerable reputation; F. J. Millar, consulting engineer, will be manager of the Chicago office at 950-951 Monadnock Block, where a five-year lease has been made. The company will specialize in the manufacture of machinery for the production of gas for power purposes. Its system is said to be satisfactory in every respect, particularly in the elimination of tar, which is extracted without mechanical means.

Mallory Machinery Co.

Among the representative machinery enterprises of its class is the Mallory Machinery Co., 310 South Charles street, Baltimore, Md. This company offers boilers, engines, pumps, tanks, hoisting outfits, air-compressors and miscellaneous machinery. It is now actively managed by Messrs. John G. Mengel and George C. Richardson, and its policy is not to misrepresent anything offered. Buying for cash large plants of different kinds throughout the country, the company says it is in position to offer buyers practical bargains at attractive prices. This company has made many large sales throughout the United States and Canada, and refers to such well-known contractors, manufacturers and mining enterprises as the Boston (Mass.) Woven Hose & Rubber Co.; H. E. Graves, Bristol, Tenn.; Bulman Bros., Winnipeg, Manitoba; Brevard (N. C.) Light & Power Co.; Vesuvius Mining Co., Baltimore; Can-

ton Distilleries Co., Baltimore; C. W. Kennard & Co., Baltimore; Gwynnbrook (Md.) Distilling Co.; Baltimore (Md.) Pearly Hominy Co.; J. F. Lednum, Preston, Md.; James A. Dezell, Mt. Pleasant, Fla., and Degnon Contracting Co., Baltimore, Md., and several hundred others.

Important Steam Plant Improvements.

A difficulty to be overcome where steam power played an important part was finding some material which possessed high-resistance physical qualities, also being strongly cohesive and with sufficient elasticity to be plastic. To accomplish this, in view of the high temperature incident to modern steam pressures and the powerful chemical influences thus produced, was no minor task. Materials were adequate when pressures generally were from 60 to 70 pounds per square inch, corresponding to from 294 to 302 degrees F. Present steam pressures range from 100 to 350 pounds, with a temperature of from 328 to 432 degrees F. Therefore, improvements in packings had to be made in order to produce satisfactory results. Referring to this, an inventor says: "The metallic packing and the metal disks are solid and not elastic. The settling of impurity between the joints causes immediate trouble from leakage, and continued leakage requires the replacing of parts. In order to remedy the difficulty with valve disks at least somewhat, regrounding was necessary. But such continued regrounding means the renewing of the parts or of the entire valve, because the seat naturally wears out too. Rubber packing and disks have the disadvantage of being neither dense enough to be impervious, nor strong enough to bear high pressures, nor fireproof enough to withstand high temperatures, nor are they composed of such materials as to withstand the increased chemical effects produced by higher pressure of steam in the presence of alkalis or alkalish earths or acid matters contained in the boiler water. As a result steam deteriorates and decomposes such packing and disk. The Ekert high-resistance materials, fulfilling modern requirements, were, therefore, very welcome from their introduction. Ekert elastic high-resistance valve disks are always ready to be placed, they always close tight, and troublesome regrounding, costly renewing, etc., is thus eliminated. They withstand any steam pressure, temperature and effects of steam up to 450 pounds in continuous service. It is said the general adoption of those up-to-date valves, furnished with the Ekert high-resistance disk, will soon take place and, no doubt, cause old-style valves to be discarded. Ekert elastic high-resistance nickel-protected disks are for use in superheated steam, since they withstand temperatures up to 900 degrees F. with perfect satisfaction. Ekert elastic high-resistance sheet packing, grades A and B, are for airpumps, hydraulic pumps, cylinder heads, steam-chest covers, handhole and manhole covers, gaskets and flanges of any kind. Grade C is for valve stems and bonnets, as well as for engine and locomotive piston-rod disks and rings, which are cut from this packing in any desired shape and dimensions. Leakage or blowing out is an impossibility. Furthermore, since no oil, water or steam penetrates these packings, durability and reliability are insured. The materials and processes used in the production of Ekert articles can be used to advantage in the manufacture of insulating goods, hard-rubber goods of great tensile strength. High-resistance tubings and hose for steam and other fluids are also made. The Ekert materials are manufactured of patented compositions of asbestos fiber, rubber and high-resisting porefilling materials. Other kinds of fiber also are used for certain classes of resistance, as for puncture-proof automobile tires, matting, etc. As all kinds of fiber can be combined with rubber to great advantage by the Ekert patented method, there is practically no limit to improvements in many lines. Fortunately the process is very simple and cheap, since there is no solvent used or complicated handling of the compounds employed whatever. There is hardly an industry where these inventions in some form or other are not in satisfactory use. Tests are being made with a view to adapting them to a still wider range of requirements." Ekert high-resistance materials are manufactured in Dayton, Ohio, by the Ekert High-Resistance Materials Co.

Regarding Automatic Telephone Installations.

Two leaflets have been issued which are of considerable interest to people who want to be informed regarding the progress being made in the installation of automatic telephone systems. One of these leaflets refers to the question of operatives for telephone exchanges and quotes daily newspapers in reference to the difficulties experienced in operating the manual system, especially with

reference to securing competent operators in the exchanges. Managers of telephone systems know the difficulties connected with the manual system and the obtaining of a sufficient force of thoroughly reliable exchange operators. The other leaflet refers to the purchase of the South Bend (Ind.) Telephone Co. by independent telephone interests. This is said to be the most important step yet taken in opening Chicago to the independent long-distance service, an end to which independent interests have been striving. It is stated that practically all the exchange troubles which managers experience can be obviated by using the automatic telephone system built by the Automatic Electric Co. of Chicago. This company's system is being extensively used now and coming into greater use every day.

Installing Gas Power and Producer.

An interesting installation of machinery has been contracted for by the Minneapolis & St. Louis Railroad Co. It comprises the order for a Munzel gas engine and suction-gas producer at a cost of \$50,000 for operating machinery and furnishing electric lights. This contract was awarded to the Minneapolis (Minn.) Steel & Machinery Co., engineer and manufacturer of "Twin City" Corliss engines, Munzel gas engines, power gas producers, complete power plants, transmission machinery, coal-handling and ore-conveying devices, gray-iron and semisteel castings, etc. The substitution of the gas-power plant to replace the old steam plant will be gradual, and by April 1 the entire contract will have been completed. The total horsepower will be 275. The machine shop, wood-working shop, planing mill, blacksmith shop, air compressors, pumps, etc., will be operated by the new plant. These engines will be furnished in three units, one for generating electric lights, one direct connected to line shaft in machine shop, and the third for operating woodshop. They will be interchangeable to help out in case of extra demand for power or breakdown of any one engine. The company is installing these gas engines after investigating the power field, and in doing so eliminates the smoke which has caused trouble. The Minneapolis Steel & Machinery Co. feels proud of this contract.

From a User of Emerson Pumps.

People who use pumps will find of interest the following letter: "The Emerson Steam Pump Co., Alexandria, Va.: Gentlemen—I have thought a number of times of writing to you in regard to the work that the No. 3 double-cylinder Emerson pump has done for me in the foundations for the Black river viaduct on the B. & O. here at Lodi. I wish to state, and that emphatically, that it has done better work and given better satisfaction than any pump I have ever had anything to do with, and I will candidly say that I do not believe there is another pump manufactured in the United States that would have done the work under the conditions that your pump did here in our foundations. The cutting off of almost 800 piling, the chips from which floated into the well hole and completely covered the strainer, burying it under to a depth of over a foot, which would have stopped any other pump, had no effect whatever on the Emerson. In the fore part of the summer I had all kinds of trouble with pumps. Finally I went to the W. M. Pattison Supply Co. of Cleveland, and they recommended your pump, so I purchased one, and have not regretted it. If I can be of any assistance to you in any way toward selling any pumps for you I will be glad to aid you, or if this letter is of any value to you, you have my permission to use it in any way that will benefit you. Very respectfully yours, George Tresher." Mr. Tresher is a contractor of Lodi, Ohio.

New Artificial Limestone.

The inventor has generally provided artificial materials when the natural ones are scarce, or owing to a great demand are of high cost. He has in many instances been able in a few hours or days to manufacture materials which nature required thousands of years to perfect. In this respect it is interesting to note an imitation of Indiana and Green River limestones, made by the Diamond Stone Brick Co. of Wilmington, Del. This stone is known as Wawaset limestone, and has been used with splendid results in important buildings. Among these is the new public library, just completed at 17th and Spring streets, Philadelphia, Pa., designed by Field & Medary, architects, of Philadelphia, Pa. The saving over natural stone was about \$3000, it is claimed. The process of manufacturing is a new one, for which patents have been applied. The stone is made by producing silicate of lime, bringing sand and lime together under special treatment, whereby a chemical reaction takes

place and, as is known to science, it is almost indestructible, being homogeneous in formation and not affected by frost or atmospheric conditions. It is stated this stone can be furnished at from 25 to 40 per cent. less in cost than natural limestones, in any shape or size required. The manufacturer says the new stone does not stain from contact with other materials or Portland cement and mortar, and it has low absorption qualities; it will not crack or spall by exposure and can be readily tooled and handled the same as the natural stone. The Diamond Stone Brick Co. is represented by the Charles Warner Company of Wilmington, Del., and Land Title Building, Philadelphia, Pa. Full description will be sent on application.

Yale & Towne News.

Mr. Frank H. Taylor, formerly vice-president of the Westinghouse Electric & Manufacturing Co., has been elected a director and a vice-president of the Yale & Towne Manufacturing Co., general office, 9 Murray street, New York. He is a graduate of Harvard University, and in 1882 was treasurer and afterward president of the Belmont Iron Co., Philadelphia. In 1890 he accepted the management of the Philadelphia branch of Yale & Towne, and remained there seven years. In 1897 he accepted the appointment of sales-manager of the Westinghouse Company, and served three years. He was then elected fourth vice-president, served for three years, and was elected second vice-president, remaining until his resignation last April. Mr. Taylor will be concerned with the manufacturing and commercial features of Yale & Towne, and will ultimately take charge of many duties heretofore attended to by the president. The organization of the Yale & Towne Manufacturing Co. now is: President, Henry R. Towne; vice-presidents, Frank Taylor and Schuyler Merritt; secretary, J. H. Towne; treasurer, A. R. Erskine; general manager, Kirk Brown, and general superintendent, Walter C. Allen. The Yale & Towne plant at Stamford, Conn., employs about 3000 men, and announcement has been made that their pay will be increased. A careful revision in day and piece rates of all the departments is now being made and when completed a new scale will be announced, probably involving an addition of \$75,000 to the annual payroll. A recent increase which the company granted aggregated more than \$45,000. This revision of rates is to readjust and equalize all departments, and in return the company expects its employees to give loyal and efficient service.

TRADE LITERATURE.

New Catalogue Now Ready.

The Pittsburg (Pa.) Feed Water Heater Co. has received its new catalogues for 1907, and a copy will be sent to anyone on application. The new catalogue is much larger than the previous issue, containing additional cuts, testimonials and list of users of Pittsburg heaters.

Allis-Chalmers Reynolds Engines.

From the steam-engine department of the Allis-Chalmers Company is being distributed Bulletin No. 1510 (dated September, 1906). This publication describes the Allis-Chalmers direct-connected Reynolds-Corliss engines of heavy-duty pattern, and the text is accompanied by photographic views. The entire pamphlet is of considerable interest and should especially be seen by users of power who contemplate installing new steam plants or enlarging those they already have. Write the Allis-Chalmers Company at Milwaukee, Wis.

The Crandall Packings.

In buying the Crandall packings the following points (the manufacturer states) should be considered: Pressure under which the packing is to be used; whether it is intended for steam, ammonia, gas, air, hot or cold water, and the correct measurement of packing space. These factors in selection and others as well are mentioned in the Crandall packing catalogue, now being distributed. The Crandall Packing Co. of Palmyra, N. Y., is the manufacturer. It has a large modern plant, and its years of experience in making packings has enabled it to establish an enviable reputation for Crandall packings.

Bollier and Setting.

At the recent American Society of Mechanical Engineers meeting in New York Embury McLean contributed a paper entitled "Bollier and Setting." Mr. F. V. Henshaw, in his discussion of another paper, observed that he considered Mr. McLean's contribution as the most important made at the convention, pointing out the remarkable capacity and economy increases as his

reasons for so observing. It is proper to call attention that the "before" as well as the "after" tests of the table were conducted under the well-known A. S. M. E. code of rules, and all bear the approval of the chief engineer or someone in authority of the respective plants. It is stated the result of the use of balanced draft at three plants is given here for the first time, i. e., Standard Oil Co., Pratt & Whitney and American Locomotive Co. Any inquiries regarding balanced draft or the balanced draft gas-producer furnace will be given immediate attention by the Engineer Company, 111 Broadway, N. Y., the manufacturer of the balanced draft gas-producer furnace.

Power-Transmission Equipments.

The transmission of power is and always will be one of the most vital and economical questions to be determined in the operation of any plant, consequently it behooves the engineers in charge of this work to acquaint themselves with its every detail and the improved methods and new ideas which are constantly being perfected. One of the best ways to keep thoroughly posted is to have at command the latest catalogues of prominent manufacturers of this class of machinery. A new catalogue, No. 10, has recently been compiled for 1907 by the George V. Cresson Company, Allegheny avenue, Philadelphia, Pa., and in addition to full details and illustrations of power transmission, crushing and concentrating machinery, roll grinders, etc., it contains a vast store of information in the shape of tables and rules that are constantly needed. This catalogue is 9x6 inches, bound in cloth, and contains 350 pages. It is printed on double enamel book paper, and the cuts are of more than usual excellence, being clear and distinct in every feature and somewhat different from those usually presented.

Palmer Concrete-Block Buildings.

Prospective builders are often deterred from using new modern building materials simply because they are unable to tell just how they might appear in the finished structure. In order to meet this want and at the same time show how well its own products are adapted to the purpose, the Harmon S. Palmer Hollow Concrete Building Block Co. has recently compiled an album, devoted exclusively to illustrations of all classes of structures in which hollow concrete blocks are used. As all of the cuts were made from photographs of these buildings, they convey, as it is possible in no other manner save by personal inspection, the actual appearance of buildings of this character. The field covered includes residences, business buildings, railroad stations, water-works, factory buildings, municipal buildings, churches, etc. The cuts are printed with double-tone ink on heavy white double-enamel book paper, 9x12 inches in size, and inclosed in heavy white parchment covers, being altogether arranged in an artistic manner. The price of this album is \$1, and it may be obtained from the Harmon S. Palmer Hollow Concrete Building Block Co., 1450 Girard street N. W., Washington, D. C.

San Francisco Earthquake and Fire.

Architects, engineers and contractors generally will be much interested in a carefully prepared history of the facts and resulting phenomena, with special reference to efficiency of building materials, as indicated in the San Francisco earthquake and fire. This history is published by the Roebing Construction Co. Shortly after the disaster this company sent A. L. A. Himmelwright, civil engineer, to San Francisco to thoroughly study the conditions as he found them. Mr. Himmelwright personally visited and carefully examined every building of fireproof construction in the city. Examinations were made of the exteriors and each story of the interiors, and an architect's level was used to insure complete accuracy in leveling foundations and plumbing walls. Speaking generally of the effects of the fire and earthquake, Mr. Himmelwright says that the manner in which the tall steel skeleton-frame buildings withstood the shock and subsequent fire was most reassuring and proves conclusively that the best modern practice is directed along correct and efficacious lines, and he adds, that in all fairness to other methods and materials that the fireproof work erected under the Roebing patents fulfilled every expectation and made a magnificent showing in every case. This volume is profusely illustrated with cuts to show the damage done to the various buildings, and considerable space is devoted to describing each of the buildings in detail. If you are interested in this publication address the Roebing Construction Co., Fuller Building, New York. Mr. Wm. T. Carson, offices in the Law Building, represents the Roebing Construction Co. in Baltimore, Md.

FINANCIAL NEWS

Review of the Baltimore Market.

Office MANUFACTURERS' RECORD,
Baltimore, Md., December 19.

The Baltimore stock market during the past week has been quiet and uninteresting. In the trading United Railways common sold from 14½ to 14; the trust certificates from 14½ to 14; the incomes from 59 to 57½; the funding 5s from 87½ to 86½, and the funding scrip also from 87½ to 86½; the 4s from 88½ to 88½; United Light & Power 4½s, 93½. Consolidated Gas, Electric Light & Power preferred was dealt in at 81; Gas 6s at 106 and 106½; Seaboard new common at 23½, and the second preferred at 50; Seaboard 4s from 82½ to 81½, and the 10-year 5s at 100; Cotton Duck 5s at 84½ to 84; G.-B.-S. Brewing common at 7½ to 7¼; do. incomes, 32; do. 1sts, 58½ to 58½.

Bank stock sold as follows: Calvert, 62½; Maryland, 20; Mechanics', 26½ to 26; Third National, 130; Citizens', 30.

Trust and other company stocks were dealt in thus: Fidelity & Deposit, 133 and 132; Maryland Trust common, 92½; do. preferred, 107 to 106; Mercantile Trust, 138; United States Fidelity, 112.

Other securities were traded in as follows: Northern Central, 108½ to 107½ to 109 to 107½, with last sale at 108; Baltimore Brick common, 5 to 5¼; do. 5s, 80 to 80½; Charlotte, Columbia & Augusta 1sts, 115¼; Charleston & West Carolina 5s, 110¼; Coal & Iron Railway 5s, 105½; Baltimore Refrigerating & Heating, 30½ to 32; City & Suburban 5s (Baltimore), 108¼; Georgia, Carolina & Northern 5s, 110¼; Georgia Southern & Florida first preferred, 98 to 97½; Norfolk & Portsmouth Traction stock, 27; Georgia & Alabama 5s, 110 to 110¼; Lexington Railway 5s, 100; Richmond & Danville 6s, 115; Comas Cigarette Machine common, 21; do. preferred, 80; Knoxville Traction 5s, 106; South Bound 5s, 110½; Western Maryland 4s, 83½ to 83; Wilmington & Weldon 5s, 117½ to 117½; Seaboard & Roanoke 5s, 111½; Atlanta & Charlotte 1sts, 103¼; Baltimore City Passenger 5s, 103¼; Virginia Midland 2ds, 109; Atlantic Coast Line of Connecticut, 326; Houston Oil common, 9; do. preferred, 48 to 47½; Maryland Electric stock, 33; Atlantic Coast Line new 4s, certificates, 89½; Metropolitan Railway 5s (Washington), 112½; Augusta Railway & Electric 5s, 101.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended
December 19, 1906.

Railroad Stocks.	Par.	Hid.	Asked.
Atlantic Coast of Connecticut	100	326	330
Georgia Southern & Florida	100	36	37½
Georgia Sou. & Fla. 1st Pfd.	100	97	98
Georgia Sou. & Fla. 2d Pfd.	100	82	84
Maryland Electric	100	32½	34
Maryland & Pennsylvania	100	36	38
Seaboard Company Common	100	23½	24
Seaboard Company 2d Pfd.	100	50	50½
United Railways & Elec. Co.	50	13½	14

Bank Stocks.	Par.	Hid.	Asked.
Citizens' National Bank	100	30	30
Com. & Far. Nat. Bk., Blue Cfs.	100	130	140
Merchants' National Bank	100	100	100
National Bank of Baltimore	100	118	118
National Bank of Commerce	15	26¼	26¼
National Exchange Bank	100	100	100
National Howard Bank	10	12¼	12¼
National Marine Bank	30	39	40
National Union Bank of Md.	100	114	114
Third National Bank	100	135	135

Trust, Fidelity and Casualty Stocks.	Par.	Hid.	Asked.
American Bonding & Trust	50	43	43
Baltimore Trust & Guarantee	100	322½	332
Fidelity & Deposit	50	130½	132½
Maryland Trust	100	92½	95
Maryland Trust Pfd.	100	104	110
Mercantile Trust & Deposit	50	138	139
Union Trust	50	55	61

Miscellaneous Stocks.	Par.	Hid.	Asked.
Ala. Con. Coal & Iron	100	62½	62½
Ala. Con. Coal & Iron Pfd.	100	93	93
Con. Cotton Duck Common	50	12	13
Con. Cotton Duck Pfd.	50	23	24
Con. Gas, Elec. Lt. & P. Pfd.	80	82	82
Consolidation Coal	100	96½	96½
G.-B.-S. Brewing Co.	100	5½	7½

Railroad Bonds.

Atlanta & Charlotte 1st 7s, 1907...	103 1/4	104
Atlantic Coast Line 1st 4s, 1902...	97	97 1/2
Atlantic Coast Line 4s, 1902...	80	80
At. Coast Line (Conn.) 5s, Cfs...	111 1/4	111 1/4
Carolina Central 4s, 1909...	77	77
Central of Georgia 2d Inc...	110 1/4	110 1/4
Charleston & West. Car. 5s, 1906...	110 1/4	110 1/4
Char. Col. & Aug. 1st 5s, 1910...	115 1/4	115 1/4
Char. Col. & Aug. 2d 7s, 1910...	109	109
Coal & Iron Railway 5s, 1920...	106 1/4	106 1/4
Georgia & Alabama 5s, 1905...	110	110 1/4
Georgia, Car. & North. 1st 5s, 1920...	110	110 1/4
Georgia Pacific 1st 6s, 1922...	120	120
Georgia Sou. & Fla. 1st 5s, 1905...	111	112
Maryland & Pennsylvania 4s, 1901...	92	92
Petersburg, Class A 5s, 1928...	113	113
Piedmont & Cum. 1st 5s, 1911...	102	102
Potomac Valley 1st 5s, 1941...	113	113
Raleigh & Augusta 1st 6s, 1926...	125	125
Richmond & Danville Gold 6s, 1915...	114	115
Seaboard Air Line 4s, 1900...	81 1/2	81 1/2
Seaboard Air Line 5s, 10-year, 1911...	99 1/4	100
Seaboard & Roanoke 5s, 1926...	112	112
South Bound 5s, 1911...	110 1/4	110 1/4
Virginia Midland 2d 6s, 1911...	109	109
Virginia Midland 5th 5s, 1911...	110	111
Western Md. new 4s, 1902...	82 1/4	83 1/4
West. North Carolina Con. 6s, 1914...	112 1/4	114
West Virginia Central 1st 6s, 1911...	107 1/4	107 1/4
Wilmington, Col. & Aug. 6s, 1910...	105	105
Wilmington & Wel. Gold 5s, 1935...	117 1/4	117 1/4

Street Railway Bonds.

Anacostia & Potomac 5s, 1919...	103	104 1/4
Augusta Railway & Elec. 5s, 1940...	100	101
Balto., Spar. Pl. & C. 4 1/2s...	94 1/2	94 1/2
Baltimore Traction 1st 5s, 1929...	112 1/2	112 1/2
Central Ry. Con. 5s (Balto.), 1902...	112 1/2	112 1/2
City & Suburban 5s (Balto.), 1922...	108 1/4	109
Knoxville Traction 1st 5s, 1928...	106	106
Lexington Railway 1st 5s, 1949...	99 1/4	99 1/4
Metropolitan 5s (Wash.), 1925...	112 1/4	113 1/4
Norfolk Railway & Light 5s...	98	98
North Baltimore 5s, 1942...	115	115
United Railways 1st 4s, 1949...	88 1/2	88 1/2
United Railways Inc. 4s, 1949...	57 1/2	58
United Railways Funding 5s...	86 1/2	87

Miscellaneous Bonds.

Ala. Con. Coal & Iron 5s...	92 1/2	92 1/2
Con. Gas 6s, 1910...	106 1/4	106 1/4
Con. Gas 5s, 1939...	110	110
Con. Gas 4 1/2s...	94	97
Con. Gas, Elec. Lt. & P. 4 1/2s...	84 1/2	84 1/2
G.-B.-S. Brewing 1st 5s...	58 1/4	58 1/4
G.-B.-S. Brewing 2d Inc...	31	31 1/2
Mt. V. & Woodby Cot. Duck 5s...	82 1/2	83 1/2
United Elec. Lt. & Power 4 1/2s...	83 1/2	83 1/2

SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending December 17.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.)...	94	95
Aiken Mfg. Co. (S. C.)...	80	87 1/2
Anderson Cotton Mills (S. C.)...	100	100
Arkwright Mills (S. C.)...	122	122
Augusta Factory (Ga.)...	80	85
Avondale Mills (Ala.)...	109	116
Beltin Mills (S. C.)...	106	106
Bibb Mfg. Co. (Ga.)...	106	122
Brandon Mills (S. C.)...	126	126
Cabarrus Cot. Mills (N. C.), new...	120	130
Chadwick Mfg. Co. (N. C.) Pfd...	102	102
Chiquola Mfg. Co. (S. C.)...	99	100
Clifton Mfg. Co. (S. C.)...	122	124
Clifton Mfg. Co. (S. C.) Pfd...	102	103
Clinton Cotton Mills (S. C.)...	150	150
Columbus Mfg. Co. (Ga.)...	96	101
Courtenay Mfg. Co. (S. C.)...	90	100
Dallas Mfg. Co. (Ala.)...	92	95
Darlington Mfg. Co. (S. C.)...	69	61
Eagle & Phenix Mills (Ga.)...	130	135
Easley Cotton Mills (S. C.)...	132	136
Enoree Mfg. Co. (S. C.)...	80	80
Enoree Mfg. Co. (S. C.) Pfd...	90	101
Enterprise Mfg. Co. (Ga.)...	96	92
Exposition Cotton Mills (Ga.)...	200	200
Gaffney Mfg. Co. (S. C.)...	37	40
Gainesville Cotton Mills (Ga.)...	37	40
Granby Cot. Mills (S. C.) 1st Pfd...	55	55
Graniteville Mfg. Co. (S. C.)...	165	165
Greenwood Cotton Mills (S. C.)...	90	91
Grendel Mills (S. C.)...	117	117
Henrietta Mills (N. C.)...	200	200
King Mfg. Co., John P. (Ga.)...	97	103
Lancaster Cotton Mills (S. C.)...	105	107
Lancaster Cot. Mills (S. C.) Pfd...	97	100
Langley Mfg. Co. (S. C.)...	82	96
Laurens Cotton Mills (S. C.)...	166	166
Limestone Mills (N. C.)...	115	115
Lockhart Mills (S. C.)...	101	101
Lockhart Mills (S. C.) Pfd...	97	100
Louise Mills (N. C.)...	90	95
Louise Mills (N. C.) Pfd...	100	100
Mariboro Cotton Mills (S. C.)...	165	165
Mayo Mills (N. C.)...	100	106
Mills Mfg. Co. (S. C.)...	99	101
Mills Mfg. Co. (S. C.) Pfd...	99	101
Monaghan Mills (S. C.)...	101	101
Monarch Cotton Mills (S. C.)...	102	102
Newberry Cotton Mills (S. C.)...	122	122
Norris Cotton Mills (S. C.)...	108	110
Olympia Cot. Mills (S. C.) Pfd...	80	80
Orangeburg Mfg. Co. (S. C.) 1st Pfd...	80	97
Ort Cotton Mills (S. C.)...	180	190
Pacolet Mfg. Co. (S. C.)...	101 1/4	104
Pacolet Mfg. Co. (S. C.) Pfd...	170	173
Pelzer Mfg. Co. (S. C.)...	170	177
Piedmont Mfg. Co. (S. C.)...	121	121
Poe Mfg. Co. (S. C.)...	52 1/2	52 1/2
Richland Cotton Mills (S. C.) Pfd...	99	105
Raleigh Cotton Mills (N. C.)...	140	108 1/2
Roanoke Mills (N. C.)...	64	68
Sibley Mfg. Co. (S. C.)...	145	150
Southern Cotton Mills (N. C.)...	100	100
Spartan Mills (S. C.)...	140	142
Springdale Mills (S. C.)...	175	175
Trion Mfg. Co. (Ga.)...	75	90
Tucapau Mills (S. C.)...	120	130
Union-Buffalo C. M. Co. (S. C.) Pfd...	99	100
Victor Mfg. Co. (S. C.)...	105	107
Warren Mfg. Co. (S. C.)...	105	107
Washington Mills (Va.)...	100	115
Washington Mills (Va.) Pfd...	145	150
Whitney Mfg. Co. (S. C.)...	122	125
Wiscasset Mills (N. C.)...	110	125
Woodruff Cotton Mills (S. C.)...	110	125

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending December 17.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.)...	95	95
Aetna Cotton Mills (S. C.) Pfd...	70	70
Aiken Mfg. Co. (S. C.)...	83	89
American Spinning Co. (B. C.)...	120	125

Anderson Cotton Mills (S. C.)...	99	103
Arcadia Mills (S. C.)...	97	100
Arkwright Cotton Mills (S. C.)...	117	117
Augusta Factory (Ga.)...	80	85
Avondale Mills (Ala.)...	105	105
Beltin Mills (S. C.)...	106	106
Bibb Mfg. Co. (Ga.)...	106	115
Brandon Mills (S. C.)...	120	120
Brogan Mills (S. C.)...	77	80
Cabarrus Cotton Mills (N. C.)...	120	120
Chadwick Mfg. Co. (N. C.) Pfd...	102	103
Chiquola Mfg. Co. (S. C.)...	99	100
Clifton Mfg. Co. (S. C.)...	120	125
Clinton Cotton Mills (S. C.)...	140	145
Columbus Mfg. Co. (Ga.)...	94	97
Courtenay Mfg. Co. (S. C.)...	100	100
Dallas Mfg. Co. (S. C.)...	90	90
Darlington Mfg. Co. (S. C.)...	69	65
D. E. Converse Co. (S. C.)...	117	117
Eagle & Phenix Mills (Ga.)...	130	135
Easley Cotton Mills (S. C.)...	132	136
Enoree Mfg. Co. (S. C.)...	100	102
Enoree Mfg. Co. (S. C.) Pfd...	100	102
Enterprise Mfg. Co. (Ga.)...	82	90
Exposition Cotton Mills (Ga.)...	174	200
Gaffney Mfg. Co. (S. C.)...	55	58
Gainesville Cotton Mills (Ga.)...	40	40
Greenwood Cotton Mills (S. C.)...	102	104
Gluck Mills (S. C.)...	94	95
Granby Cot. Mills (S. C.) 1st Pfd...	55	55
Graniteville Mfg. Co. (S. C.)...	155	165
Greenwood Cotton Mills (S. C.)...	92	95
Grendel Mills (S. C.)...	115	115
Hartsville Cotton Mills (S. C.)...	98	98
Henrietta Mills (N. C.)...	200	200
Inman Mills (S. C.)...	97	100
King Mfg. Co., J. P. (Ga.)...	97	103
Lancaster Cotton Mills (S. C.)...	102	110
Lancaster Cot. Mills (S. C.) Pfd...	95	99
Langley Mfg. Co. (S. C.)...	102	102
Laurens Mills (S. C.)...	160	165
Limestone Mills (S. C.)...	110	110
Lockhart Mills (S. C.)...	99	102
Lockhart Mills (S. C.) Pfd...	101	101
Loray Cotton Mills (N. C.) Pfd...	98	98
Louise Mills (N. C.)...	90	95
Louise Mills (N. C.) Pfd...	102	102
Mariboro Cotton Mills (S. C.)...	165	165
Mayo Mills (N. C.)...	100	106
Mills Mfg. Co. (S. C.)...	99	101
Mills Mfg. Co. (S. C.) Pfd...	99	101
Molohon Mfg. Co. (S. C.)...	90	90
Monaghan Mills (S. C.)...	100	100
Monarch Cotton Mills (S. C.)...	101	101
Newberry Cotton Mills (S. C.)...	120	120
Ninety-Six Cotton Mills (S. C.)...	92	97
Norris Cotton Mills (S. C.)...	106	106
Odell Mfg. Co. (N. C.)...	90	90
Orangeburg Mfg. Co. (S. C.) Pfd...	80	97
Ort Cotton Mills (S. C.)...	180	190
Pacolet Mfg. Co. (S. C.)...	101 1/4	104
Pacolet Mfg. Co. (S. C.) Pfd...	170	173
Pelzer Mfg. Co. (S. C.)...	170	177
Piedmont Mfg. Co. (S. C.)...	121	121
Poe Mfg. Co. (S. C.)...	52 1/2	52 1/2
Raleigh Cotton Mills (N. C.)...	140	108 1/2
Roanoke Mills (N. C.)...	64	68
Sibley Mfg. Co. (S. C.)...	145	150
Southern Cotton Mills (N. C.)...	100	100
Spartan Mills (S. C.)...	140	142
Springdale Mills (S. C.)...	175	175
Trion Mfg. Co. (Ga.)...	75	90
Tucapau Mills (S. C.)...	120	130
Union-Buffalo 1st Pfd...	70	70
Union-Buffalo 2d Pfd...	70	70
Victor Mfg. Co. (S. C.)...	115	115
Warren Mfg. Co. (S. C.)...	105	107
Washington Mills (Va.)...	100	115
Washington Mills (Va.) Pfd...	145	150
Whitney Mfg. Co. (S. C.)...	122	125
Wiscasset Mills (N. C.)...	110	125
Woodruff Cotton Mills (S. C.)...	110	125

Bank Reports.

The State Bank of Virginia at Richmond, Va., reports at close of business June 18, 1906, loans and discounts, \$2,853,374; cash and due from banks, \$547,750; capital paid in, \$500,000; surplus and undivided profits, \$313,535; deposits, \$2,707,520; total resources, \$3,545,293. John S. Ellett is president; Wm. M. Hill, cashier, and Julien H. Hill, assistant cashier.

New Corporations.

Lee Joseph will, it is reported, establish a State bank at Cuero, Texas, with \$50,000 capital.

The Bank of Milan, referred to in the last issue of the MANUFACTURERS' RECORD, is to be located at Milan, Ga.

The Bank of Branchville, S. C., has been chartered; capital \$25,000; R. F. Dukes, president; O. A. Smoak, cashier.

The First State Bank of Oran, Texas, has been chartered with \$10,000 capital by H. N. Frost, P. E. Bock and W. F. Smith.

The Fidelity Loan & Investment Co., organized at Fort Smith, Ark., has begun business. J. Murphy and others are interested.

It is reported that efforts are being made to organize a bank at Cusseta, Ga., R. L. Harp and other local citizens being interested.

The Merchants and Farmers' Bank of Garysburg, N. C., has been chartered with \$7500 capital. A. J. Ellis is the principal incorporator.

It is reported that a bank has been es-

tablished at Mantee, Miss., with \$25,000 capital, in charge of H. Richard Smith of Houston, Miss.

The new bank recently organized at Nortonville, Ky., is to be known as the First State Bank of Nortonville. Burr Morton is president.

The Southern Savings Bank of La Plata, Md., capital \$25,000, has organized with Adrian Posey, president, and John S. Button, cashier.

The Roscoe State Bank of Roscoe, Texas, has been granted its charter. W. F. Jones is president and G. L. Hopkins cashier; capital \$20,000.

It is reported that the Southern Interstate Bank at Richmond, Va., contemplates establishing branches in Virginia. W. Gray Wattson is cashier.

The Commercial Bank of El Reno, Okla., has begun business with C. R. Miller, president; C. M. Standard, vice-president, and Earl Beebe, cashier.

The First State Bank of Devine, Texas, has begun business with George W. Heister, president; O. F. Jamison, vice-president, and Sterling C. Robertson, cashier.

The Commercial Trust Co. of Checotah, I. T., has been organized with \$10,000 capital. The incorporators are M. C. Livingston, D. H. Nichols and A. H. Livingston.

The Caddo Abstract Co. has been incorporated at Shreveport, La., with \$25,000 capital by J. D. Eubank, F. A. Leonard, W. H. Matthews, Peter Youree and Henry Youree.

The Merchants and Farmers' Bank of Nicholls, Ga., capital \$50,000, has been granted a charter. The incorporators are J. A. Davis, John Lott, Sr., A. J. Meeks and others.

The Bank of Levasy at Levasy, Mo., will be ready to do business about January 1; capital \$10,000; S. H. Chiles, president; H. W. Bickel, vice-president; C. F. Harra, cashier.

The Swansen Real Estate, Mercantile & Investment Co., Swansen, S. C., has been granted a commission; capital \$25,000. The petitioners are J. B. Langford and Paul E. Hutto.

Ben T. Head of the Lexington Banking & Trust Co., Lexington, Ky., has been elected president of the Southern Banking & Trust Co., organized at Harriman, Tenn., with \$100,000 capital.

The Seminole National Bank, Seminole, Texas, has been authorized to do business with \$25,000 capital. W. H. Brennan is president; Robert P. Malone, vice-president; W. P. Love, cashier.

The Vickery National Bank of Lavonia, Ga., capital \$25,000, has been authorized to begin business with C. W. Vickery, president; J. O. Shirley, vice-president, and Arad B. Vickery, cashier.

The Caddo Abstract Co. of Shreveport, La., has been chartered; capital \$25,000. The officers are J. D. Eubank, president; F. A. Leonard, vice-president; W. H. Matthews, secretary and treasurer.

The Lakewood Building Association has been incorporated at Baltimore, Md., with \$500,000 capital by John G. Nagengast, Frank Muller, James E. Schaeffer, Martin Meyerdrick and Arthur Herzog.

Arrangements are reported being made by the Commercial and Savings Bank of Hopkinsville, Ky., to establish a branch at Gracey, Ky., and it is said business is expected to begin about January 10.

The New Farley National Bank, Montgomery, Ala., \$200,000 capital, has begun business; L. B. Farley, president; Warren Tyson, cashier; R. P. Crum, vice-president; J. J. Flowers, assistant cashier.

The First State Bank of Looney, O. T., capital \$10,000, has been incorporated by H. B. Johnson of Chickasha, P. S. Hoffman, L. W. Burnett and M. E. Hale of Chandler, F. W. Bryant of Oklahoma City,

The First State Bank of Montgomery, Ala., has been granted a charter; capital \$10,000. The incorporators are W. B. Wood, J. F. Davis, N. H. Branch, W. T. Nobles, L. A. Peel, D. B. Dean and J. M. Gary.

The New Boston National Bank, New Boston, Texas, has been approved; capital \$30,000. The organizers are John J. King, Texarkana, Texas; James Hubbard, R. M. Hubbard, C. P. Helms and W. M. Bloxham.

Articles of incorporation for the Peninsular Trust Co. of Tampa, Fla., capital \$50,000, have been filed by J. M. Harvey, J. R. Tatum, J. M. Gibson, W. F. Himes, D. F. Owen, A. C. Hamblin and O. A. Windhorst.

A report from Baton Rouge, La., says that a savings bank and trust company will soon be organized there with capital of from \$50,000 to \$100,000. It will be to some extent affiliated with the Bank of Baton Rouge.

The Massanutten National Bank of Strasburg, Va., has been approved; capital \$25,000. The organizers are J. W. Eberly, Strasburg, Va.; E. D. Neuman, R. C. Wright, S. M. Zen, F. M. Zen and C. L. Kneisley.

The Bank of Bowersville at Bowersville, Ga., has been granted a charter; capital \$25,000. The incorporators are J. M. Cannon, Jr., S. T. Fleming and J. H. Walton, all of Hart county, and W. C. Mason of Franklin.

Reports state that the Eleventh German Building Association of Cumberland, Md., is to begin business January 7. Subscriptions will be received by John Schiller at German Savings Bank or J. H. Holzshu, 87 Baltimore street.

The Baltimore Mutual Building and Loan Association has been incorporated at Baltimore, Md., with \$500,000 capital by Oliver J. Allenbaugh, William H. Moore, Joseph Sir, Michael Gartner and Edward W. Couchman.

The Fraternal Building and Loan Association of Baltimore, Md., has been incorporated with \$520,000 capital by Frederick C. Kratsch, Patrick J. Cushman, William Edgar Byrd, Alexander V. Owens and Frederick C. Hecklinger.

The Bank of Senoia has been organized at Senoia, Ga., with \$25,000 capital. The directors are Lee Hand, president; J. L. Arnall, vice-president; Vindex Hand, cashier; R

The Bank of Belmont at Belmont, N. C., authorized capital \$50,000, has been incorporated by R. L. Stowe, W. B. Puett, J. Q. Hall, R. B. Suggs and J. W. Armstrong of Belmont, Thomas W. Springs of Mt. Holly, R. R. Ray of McAdenville and L. L. Jenkins of Gastonia.

The Fourth National Bank is reported organized at Tulsa, I. T., with \$100,000 capital, among the stockholders being J. G. McGannon, director of the Lincoln Trust Co. of St. Louis, and J. M. Berry, a banker of Seneca, Mo. Business is expected to begin in about 30 days.

The Macon County Bank is to be the name of the new bank at Franklin, N. C. Jas. A. Porter will be president; Lee Crawford, cashier; T. B. Higdon, vice-president, and J. W. Mann, S. L. Kelly, E. H. Franks, S. H. Lyle, D. W. Blaine, J. A. Porter and T. B. Higdon, directors.

The Merchants' Bank of Greenwood, Miss., is to begin business about February 1 with \$50,000 capital. The directors are W. M. Hamner, J. A. Wood, Rowan Thayer, W. A. Stinson, A. Dahmer, P. A. Malone and Dr. I. B. Bright. Mr. Thayer has been elected president, and Mr. Malone, vice-president.

The Security National Bank of Oklahoma City, Okla., is to begin business about January 1 with \$100,000 capital. J. D. Mees will be president, and Wm. Raymond of Grundy Center, Iowa, cashier. Oscar G. Lee and W. F. Young of Oklahoma City and W. S. Search of Shawnee are among the stockholders.

The Ouachita National Bank of Monroe, La., capital \$200,000, has been approved. The organizers are T. E. Flournoy, Monroe, La.; L. D. McLain, F. G. Hudson, Isaac Baer, D. A. Bread and others. It is to succeed the Ouachita National Bank of Monroe, which association will expire by limitation April 20, 1907.

The Farmers' State Bank at Crockett, Texas, has been organized with \$25,000 capital. The incorporators are C. S. Peek, E. O. Cone, John Sealy, George Sealy, J. C. League, W. M. Selkirk, E. R. Girardeau and Sealy Hutchings; directors, Sealy Hutchings, Charles S. Peek, E. O. Cone, William M. Selkirk and E. R. Girardeau.

The Pensacola Bank & Trust Co., Pensacola, Fla., recently incorporated with capital of \$200,000, has the following directors: Oscar L. Bass, president; Ford L. Wilkinson, vice-president; George C. Scudamore, cashier; William E. Mathis, George P. Wentworth, Thos. C. Watson, C. Thiesen, J. Walter Kehoe and William L. Moyer.

The People's State Bank is to be the name of the new bank organized at Kirbyville, Texas. The officers are J. A. Herndon, president, and J. M. Mixson, vice-president; directors, T. S. Wright, Dr. D. McMicken, J. H. Hooker, Dr. C. B. Ogden, J. Woods, R. J. Cooper, A. L. Williams, J. H. Herndon and J. M. Mixson; cashier not yet elected.

The MANUFACTURERS' RECORD is informed that the Bank of Carlisle at Carlisle, Ark., has completed its organization by electing the following officers: J. R. Wells, president; W. H. Nichols, vice-president; H. I. Beuchley, treasurer; E. A. Wilson, secretary, and R. A. Hutson, cashier; directors, Dr. E. A. Callahan, G. C. Smith, L. W. Hutson and R. A. Hutson.

New Securities.

Beaumont, Texas.—The proposed issue of \$130,000 of bonds for paving, sewers and schoolhouse improvements has been submitted to the Attorney-General for approval. The bonds are to be 5 per cents.

Benwood, W. Va.—It is stated that application is to be made to the Legislature for authority to issue \$50,000 of crematory bonds.

Bristol, Va.—It is reported that a bill

is to be introduced in the Legislature providing for an issue of \$350,000 of waterworks bonds.

Cameron, Mo.—It is reported that the Wm. R. Compton Bond & Mortgage Co. of Macon recently purchased at par \$9000 of 5 per cent. electric-light and water bonds.

Carrollton, Ky.—The \$25,000 of 5 per cent. improvement bonds have been purchased by Weil, Roth & Co. of Cincinnati at a premium of \$1385.08.

Cartersville, Ga.—Messrs. Seasongood & Mayer of Cincinnati were the purchasers of the \$40,000 of 5 per cent. improvement bonds offered last September.

Centerville, Miss.—It is stated that the Thomas J. Bolger Company of Chicago has been awarded \$12,500 of 6 per cent. school bonds at a premium of \$75.

Charleston, W. Va.—Bids will be received by E. E. Hood, City Recorder, until 8 P. M. January 17 for \$25,000 of bridge, \$125,000 of sewer and \$100,000 of refunding 4½ per cent. bonds.

Charlottesville, Va.—The city has voted to issue \$160,000 of 4½ per cent. 10-40-year reservoir bonds. It is stated that these bonds will take the place of the \$120,000 of 4 per cent. 20-40-year bonds unsuccessfully offered August 20.

Chattanooga, Tenn.—The city authorities are contemplating a bond issue of about \$700,000 for municipal improvements and the funding of the floating debt.

Corpus Christi, Texas.—It is reported that the Epworth League of Texas will issue \$25,000 of bonds for improvement of the encampment site at Corpus Christi.

Crawfordville, Ga.—The city voted December 10 to issue \$2500 of light bonds. It is stated the securities will soon be placed on the market.

Crowley, La.—It is stated that Messrs. F. R. Fulton & Co. of Chicago have purchased at par the \$50,000 of sewer, \$20,000 of water-works and \$30,000 of school 5 per cent. bonds.

Denton, Texas.—It is reported that an election will probably be held in Denton county to vote on \$200,000 of road bonds.

Eatonton, Ga.—The Bank of Eatonton has been awarded at 102.50 the \$15,000 of 5 per cent. sewer bonds.

Gadsden, Ala.—The city has sold a balance of \$15,000 of sewer bonds to the First National Bank of Ludlow, Ky. The total issue is \$30,000, all of which is now held by that bank.

Georgetown, S. C.—The MANUFACTURERS' RECORD is informed that E. H. Rollins & Sons of Chicago and Boston have been awarded at a premium of \$719.60 the \$35,000 of 5 per cent. 30-year bonds of Wingat School District. The purchasers will furnish the bonds.

Greensboro, Ga.—Greene county will vote January 1 on \$40,000 of 4 per cent. 1-30-year road bonds.

Greensboro, N. C.—On February 19 an election is to be held to vote on \$30,000 of additional bonds for school improvements.

Hattiesburg, Miss.—It is stated that the City Council has decided to issue \$175,000 of public improvement bonds.

High Point, N. C.—The city has voted to issue \$75,000 of bonds in aid of the Glen Anna & Pee Dee Railroad.

Hillsboro, Texas.—The \$4500 of 2 per cent. 5-28-year refunding bonds have been approved and registered.

Jamestown, Va.—The Jamestown Hotel Corporation is reported to have filed a mortgage with the Citizens' Bank to secure an issue of \$80,000 of 7 per cent. two-year bonds, but redeemable after November 1, 1907.

Jefferson, Ga.—It is reported that owing to an error in the advertisement the election to vote on \$15,000 of school bonds has been postponed indefinitely.

Maysville, Ga.—On January 2 an elec-

tion will be held to vote on \$3000 of 6 per cent. 4-9-year school bonds. Brantley Prickett is Town Clerk.

McComb, Miss.—The \$15,000 of 5 per cent. water bonds have been purchased by the Pike County Trust Co. of McComb.

McMechen, W. Va.—Bids will be received by J. L. McMechen and J. E. Doyle, commissioners, until noon December 27 for \$20,000 of 4½ per cent. municipal bonds.

Meadville, Miss.—An election is to be held in Franklin county January 22 to vote on \$60,000 of bridge bonds. Address County Clerk.

Midway, Texas.—An election is to be held January 10 to vote on a proposition to issue schoolhouse bonds.

Milledgeville, Ga.—The election to vote on \$50,000 of City Hall and paving bonds is to be held January 4.

Millen, Ga.—Jenkins county will vote December 27 to decide the question of issuing \$43,000 of courthouse and \$15,000 of bridge 5 per cent. 1-20-year bonds. Address County Clerk.

Murray, Ky.—The question of issuing \$20,000 of water and light bonds is reported under consideration.

Nashville, Tenn.—On May 12 the city will vote on \$300,000 of 4½ per cent. 30-year high-school bonds. H. S. Bauman is City Recorder.

Orangeburg, S. C.—The Security Trust Co. of Spartanburg, S. C., has purchased the \$50,000 of 4½ per cent. 20-40-year sewer bonds at 99.40.

Paden, I. T.—Reports state that \$3000 of 6 per cent. schoolhouse bonds are being offered at private sale by M. L. Davis, City Clerk.

Perry, Fla.—Taylor county will issue \$54,000 of 6 per cent. warrants for a new courthouse, the first warrant to be issued May 1, 1907. John C. Calhoun, clerk of the Circuit Court at Perry, Fla., can give information.

Pontotoc, Miss.—Messrs. John Nuveen & Co. of Chicago were recently awarded at par \$8000 of 6 per cent. electric-light bonds.

Quannah, Texas.—It is reported that the \$50,000 of 4 per cent. Hardeman county courthouse bonds will be placed on the market about February 15.

Sandersville, Ga.—The city has voted to issue \$20,000 of sewer and \$10,000 of water and light bonds.

Slidell, La.—It is reported that \$10,000 of 5 per cent. school bonds have been authorized by the Town Council.

Sinton, Texas.—The \$2000 of 5 per cent. 5-20-year San Patricio county bridge bonds have been approved.

St. Augustine, Fla.—An election is to be held January 8 to vote on \$100,000 of sewer bonds. E. E. Boyse is Mayor.

Thomasville, Ga.—The Robinson-Humphrey Company of Atlanta is reported to have purchased at par \$30,000 of 4 per cent. paving bonds.

Tuscaloosa, Ala.—On December 5 the city voted to issue \$125,000 of 5 per cent. 30-year water-works bonds. F. G. Blair is Mayor.

Waco, Texas.—The city has voted to issue \$60,000 of sewer bonds.

West Alton, Mo.—It is reported that \$1200 of West Alton school-district bonds were recently sold.

West Monroe, La.—The MANUFACTURERS' RECORD is informed that the town has voted a four-mill tax for 10 years to build City Hall and a two-mill tax for 10 years for electric lights. Bonds will soon be issued and placed on the market. R. L. Rinehart is Mayor.

West Palm Beach, Fla.—S. A. Kean of Chicago has purchased at a premium of \$22.50 the \$40,000 of 5 per cent. Dade county school-building bonds of district No. 1.

Winona, Miss.—The \$10,000 of 5 per cent. 20-year school bonds have been purchased by the Wm. R. Crompton Bond & Mortgage Co. of Macon, Mo.

Winyah, S. C.—The \$35,000 of 5 per cent. 20-30-year school-building bonds have been purchased by E. H. Rollins & Sons of Boston at a premium of \$719.60.

Yatesville, Ga.—Bids will be received by John W. Brown, Mayor, until noon January 1 for \$4000 of 6 per cent. school-building bonds.

Bids will be received until 3 P. M. January 2, 1907, by the Mayor and Council of Wrightsville, Ga., for \$10,000 of electric-light bonds and \$25,000 of water bonds, all 5 per cents. J. W. Brinson, Jr., is Mayor. Further particulars will be found in the advertising columns.

Financial Notes.

Atlanta, Ga., is reported to have redeemed \$60,000 of Piedmont Park bonds.

Reports state that the Skiatook Bank of Skiatook, I. T., has absorbed the First Bank of Skiatook.

The Merchants and Planters' Bank of Warren, Ark., has, it is reported, decided to increase its capital to \$50,000.

It is stated that since the beginning of the fiscal year, May 1, 1906, Dallas, Texas, has redeemed \$19,000 of outstanding bonds.

The National Bank of Commerce at St. Louis, Mo., has, it is reported, purchased control of the Fourth National Bank of St. Louis.

The Bank of Mobile National Banking Association at Mobile, Ala., is issuing an attractive souvenir postal illustrating its substantial building.

It is stated that if the applications now pending are granted Georgia will have 400 State banks by January 1, 1907. There are now 393 State banks.

The Virginia-Carolina Chemical Co. has declared a quarterly dividend of 2 per cent. on its preferred stock, payable January 15, 1907. S. W. Travers is treasurer.

The Cosmopolitan Bank & Trust Co. of New Orleans, La., is reported to be established and doing business in its new quarters at Union and Carondelet streets.

It is reported that at the expiration of its 20-year charter in March next the Merchants' National Bank of Tuscaloosa, Ala., will be reorganized as the Merchants' Bank & Trust Co. and the capital increased from \$150,000 to \$175,000.

PROPOSALS.

Proposals Invited

The Courthouse Commission of New Orleans, La., invite proposals for the erection of a Fireproof Courthouse in the City of New Orleans. Building about 250x290 feet, four stories; pile foundations; exterior of stone and terra-cotta; electric elevator and wiring; heating system. Proposals invited for both steel and reinforced-concrete frame and floor construction. Plans and specifications may be seen at the office of the Commission, 1201 Ibierna Bank Building, New Orleans, La., and copies may be secured at the offices of Frederick W. Brown, A. Ten Eyck Brown and P. Thornton Marye, associated architects, Equitable Building, Atlanta, Ga., upon request, accompanied by deposit of \$25, of which \$15 will be refunded on return of plans and specifications. A certified check in the sum of 2 per cent. of amount of proposal, payable to the Courthouse Commission, must accompany each proposal. The usual conditions to govern the return of checks. The right is reserved to reject any and all proposals submitted. Proposals will be opened at the office of the Commission, 1201 Ibierna Bank Building, New Orleans, La., at 2 o'clock P. M. Monday, February 4, 1907. For further information direct the architects at Atlanta or Mr. Arthur McGuirk, secretary Courthouse Commission, Ibierna Bank Building, New Orleans, La.

By authority of the Courthouse Commission.
BERNARD McCLOSKEY, President.
ARTHUR MCGUIRK, Secretary.

City Lighting

Bids for lighting the City of Natchez, Mississippi, for a term of 10 years from March 7, 1908, will be received up to 4 P. M. March 7, 1907. Specifications on file at City Clerk's office. For further particulars address George T. Eisele, City Clerk, or S. E. Stewart, chairman Lights and Water Committee, Natchez, Miss.

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